VOL 64

APRIL 15, 1943

NO. 4

Are your Picker Aprons THE WEAK LINKS In your production chain?

Picker Aprons perform a most important function in the operation of Picking Machinery. If they are of poor quality, or are improperly constructed, they become weak links in your production chain, and troublesome delays and imperfect yarn invariably follow.

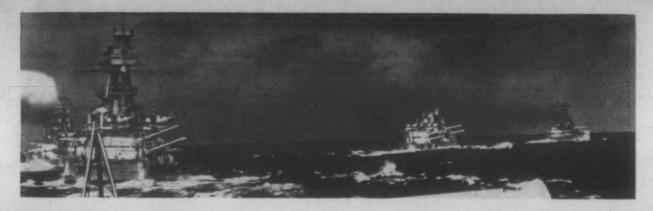
Our Picker Aprons are made of the very highest grade materials and the assembling is performed by mechanics skilled in this exacting work. That's why they have established an enviable reputation for performance and long life in leading mills from Virginia to Texas.

OUR APRONS
LAST LONGER AND
DO THE JOB BETTER

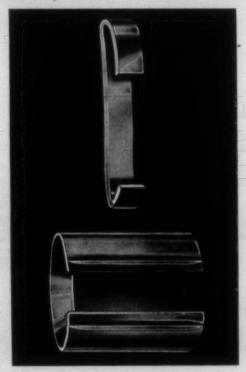
QUICK DELIVERY
FOR STANDARD PICKERS
FROM STOCK

AUG 43

TROY WHITEHEAD MACHINERY COMPANY Phone 3-9831 CHARLOTTE, N. C. P. O. Box 1694



They Can "Take It"—and They Can "Dish It Out"



BEVEL EDGE

The Bowen Patented Bevel Edge feature of U. S. Ring Travelers produces ideally smooth, even yarn. There are no angular edges to flatten the end. There are no split ends in throwing rayon—no fly waste in the spinning and twisting of cotton, wool, worsted, asbestos, kindred fibres. Made and stocked in all sizes and weights, for all kinds and counts of yarns.

U. S. RING TRAVELERS can take the terrific punishment of today's 24-hour, high speed production grind because they are made of the very highest quality materials by skilled workmen, using modern machine tools and scientific methods.

And these travelers are doing their part in "dishing out," to exacting standards, the enormous quantities of textiles required for the war effort, because they are correctly designed and are absolutely uniform in weight and temper.



U. S. Ring Traveler Company

AMOS M. BOWEN, Pres. and Treas.

Providence, R. I.

Greenville, S. C.

A Traveler for Every Fibre

GETTING THE MOST FROM WI

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation



CONTROL OF TENSION AND PRESSURE FOR PINEAPPLE CONES OF HOSIERY-TWIST RAYON

When winding hosiery-twist rayon yarn on the No. 50 machine with Pineapple Cone Attachment and Roller Bail, the proper control of both tension on the yarn and pressure against the package, will help to produce cones of the desired shape and density.

At the start of winding, the amount of tension and pressure should be enough to

Fig. 1

build a firm foundation of yarn that will withstand the crushing effect of the outer layers. This tension and pressure will be gradually lessened, as the package diameter increases, through the differential adjustments.

The amount of applied tension will vary to some extent according to the denier of the yarn, the number of turns of twist, and the type of supply.

During recent months, we have experimented, in our own winding room, with

sample lots of viscose rayon hosiery yarns. The following data, obtained from those tests, may be helpful to other mills in determining the proper controls for their conditions:

ing Rod is in the 5th hole from the top. If the maximum diameter is less than 4½", it may be necessary to locate the Rod in the 6th or 7th hole from the top

recommended position for the connect-

Cone Diam- eter	Yarn Denier	Tension Weight	Pressure Weights	Measured Tension at Start	Measured Tension at Finish	
41/5"	150	50-124X	50-128CX&128DX	approx. 25 grams	8-12 grams	
412"	100	50-138ACAX*	50-128CX&128DX	approx. 22 grams	7-11 grams	
41/9"	75	50-138ACAX	50-128CX&128DX	approx. 18 grams	6- 9 grams	
412"	50	50-138ACAX	50-128CX&128DX	approx. 14 grams	5- 7 grams	

*Part 50-138ACAX is a balance weight positioned on the Differential Tension Lever so as to offset some of the weight of the Lever itself. It is used when winding rayon yarns of 100 denier and finer, which require a lighter tension than is obtainable with the standard weight.

A little experimenting will determine where the tension weight should be positioned on the Differential Tension Lever, but it is not necessary to wind a full cone in order to find out the applied tension at the finishing diameter. First, the tensometer is used to check the initial tension with the Traverse Frame Back and Roller Bail in position against the empty cone (Fig. 1); then the Traverse Frame Back is pulled away from the cone to approximately the same position it would be in for cone of maximum diameter (Fig. 2), and the tension is checked again.

It is important to remember that excessive tension on the yarn should be reduced by changing the tension weight, not by adjusting the Tension Stop (A) on the Anti-Wear Tension. The purpose of this Stop is to keep the movable grid from passing too far through the fingers of the stationary grid. It should be setwith the yarn running at the start of winding-so that it almost touches the finger on the movable grid. It should never actually touch for fear of destroying the differential feature; if it should touch, the release of tension through the Differential Tension Lever would not take effect until after a considerable portion of the package had been wound.

The position of the Differential Pressure Connecting Rod in the Differential Pressure Adjuster may vary according to the diameter of the full cone. For a cone with $4\frac{1}{2}$ " maximum diameter, the

in order to obtain sufficient release of tension.

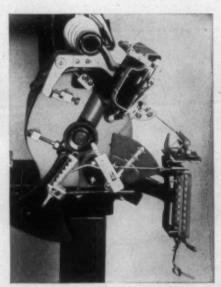


Fig. 2

Other Rayon Yarns

For acetate, cuprammonium and similar rayon yarns, the same tension and pressure weights are used. However, somewhat less tension is desirable at the start of a new cone, so the position of the weight on the Tension Lever should be adjusted accordingly.

COMPANY

See our Catalog in TEXTILE YEARBOOK 43-GMW-38

"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

UNIVERST

BOSTON

PHILADELPHIA

UTICA

CHARLOTTE

ATLANTA

Reg. U.S. Pat. Off.



and DETERGENT

FOR SCOURING . BLEACHING . DYEING & FINISHING

OTHER CHARACTERISTICS

- I HIGHLY CONCENTRATED, DRY POWDER.
- 2 READILY SOLUBLE.
- 3 UNAFFECTED BY ACIDS, ALKALIES OR HARD WATER.
- 4 POWERFUL WETTING OUT AND PENETRATING AGENT.
- 5 EFFECTIVE DETERGENT IN SMALL QUANTITIES.
- 6 FREE FROM ODOR.
- 7 RINSES OUT OF CLOTH READILY.
- 8 PREVENTS DULLING OF SHADES IN DYE BATH.
- 9 CAN BE USED WITH SOAP.

TYPICAL APPLICATIONS

Kier boiling . rope soaping . sizing · piece dyeing · package dyeing · mercerizing · carbonizing . wool scouring . silk degumming . acetate washing.

Prices and formulas on request



ARNOLD, HOFFMAN & CO., INC.

Established 1815

PROVIDENCE, R. I.

Plant at Dighton, Mass.

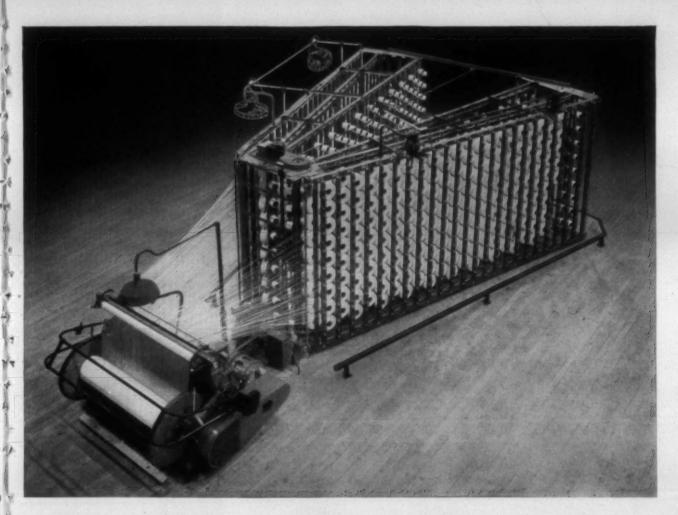
NEW YORK

BOSTON

PHILADELPHIA

CHARLOTTE

TEX



Better Beams-at Half a Mile a Minute!

Speed warper winds yarn on the beam firmly and uniformly at the rate of 900 yards a minute, which is 30.7 miles per hour—but that's only part of the story. Warping, of itself, does not add anything to the yarn, either in twist or condition but, unless it is done right, it can seriously reduce the yarn's natural elasticity. Because the warping adds nothing, but only puts the yarn on a proper beam for slashing or weaving, it must also be done as economically as possible. The

Barber-Colman Super-Speed Warper meets these conditions. Elasticity of the yarn is preserved to the highest possible degree, because it is subject only to air friction. The high operating speed means high production per operator and per machine. In addition, the special creel with traverseable banks of cheese holders helps reduce change time, and a special comb and drop wires reduce creeling-in time. These and various other mechanical features all combine to insure maximum production with minimum effort.

For Example...

In a prominent coarse goods mill, where Barber-Colman Spoolers and Warpers are in use, the following production is obtained:

Count . 95

Ends on Beam 292

Yardage on Beam 18,000 yds.

Net Wgt. of Full Beam, 659 lbs.

Beams per Warper per 24-hour Day

29

AUTOMATIC SPOOLERS . SUPER-SPEED WARPERS . WARP TYING MACHINES . TWISTER CREELS . MOISTURE CONTENT CONTROLS

BARBER-COLMAN COMPANY

RACKFARD

ILLINOIS.

W . .

FRAMINGHAM, MASS., U. S. A.

GREENVILLE, S. C., U. S. A.

MANCHESTER, ENGLAND



Sure—you'd give him the shirt off your back

but carders can help more by maintaining peak efficiency in the card room

Remember — as you press for production, it's your card clothing that takes the rap. So, the quality of your card clothing directly affects the efficiency of your operation.

TUFFER—made by our exclusive patented Tufferizing Process, is your guarantee of wires that are cut even in length and free from burrs; wires with accurately formed square crowns; wires spaced evenly and parallel set in the famous Tuffer foundation.

This adds up to Card Clothing quality—the kind that stays on the job longer—the kind that helps you maintain peak efficiency.

When you Replace Replace with

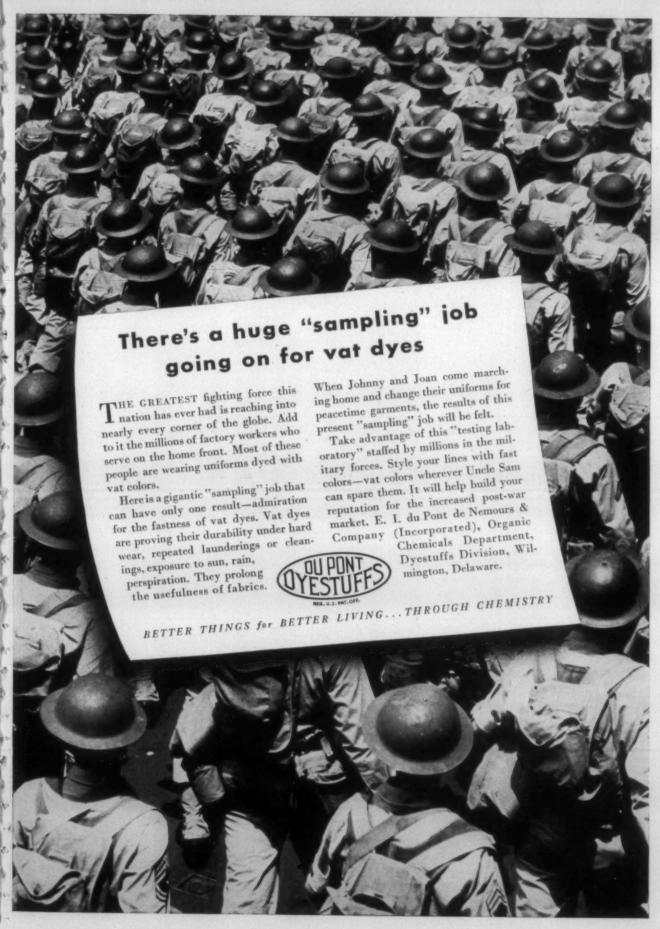


Atlanta, Ga., Gastonia, N. C. Philadelphia, Pa., Dallas, Texas Southern Plants Colwool Accessories, Ltd., Toronto 2 Branch Offices . Canadian Agents

PRODUCTS

O.W.I. PHOTO

Garnet Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midaley Patented, and Howard's Special Hand Stripping Cards • Inserted Eve and Regular Wire Heddles





.. on two fronts

sacrificing their all. By comparison our tasks on the home front are easy... yet our responsibility and duty to produce materials and equipment to speed the victory are great. The Army-Navy E citation which has been awarded to the men and women at the Saco-Lowell Shops is a symbol recognizing not only work accomplished, but also the responsibility yet to be completed. To us this award is and will continue to be a constant incentive . . . and an emblem which we shall strive to be deserving of always.

This is our pledge: To work unceasingly in the production of war materials in support of the 700 fellow workers represented on our service flag.

This is our goal: To hasten the day when they will again take their places beside us in peace-time production.

SACO-LOWELL SHOPS Biddeford, Maine



MAKES US BOBBINS

Straight Grained • Stronger • Longer Lasting • Truer Running

Notice how square and even the pattern is on the top of the tree bolt where the cutting knives enter! See how irregular the pattern has become at the opposite end following the grain!

U S takes this stock which is split, not sawed, and centers it on the grain for turning to size and shape. This gives "true grain" strength to every U S Bobbin. Besides being stronger it turns down to a smoother surface than bobbins made from sawed stock which always have considerable cross grain.

The stronger U S Bobbins naturally stand up better in service and last longer. They are less likely to splinter or break with loss of bobbin and yarn.

Straight grained U S Bobbins can be bored more accurately for better balance, truer running, less vibration and wobble. Made to precise specifications U S Bobbins are your best assurance of trouble-proof operation. They cost no more to buy, much less to use.

Talk to our technically trained representative when he next calls. Take advantage of his knowledge and experience in improving mill production. The complete line of U S Textile Accessories – Bobbins, Shuttles, Spools, Cones, Rolls, Tubes, – are still setting new mill records after generations of improvement.

US WHY NO. 1

Watch for more U S WHYS in these pages

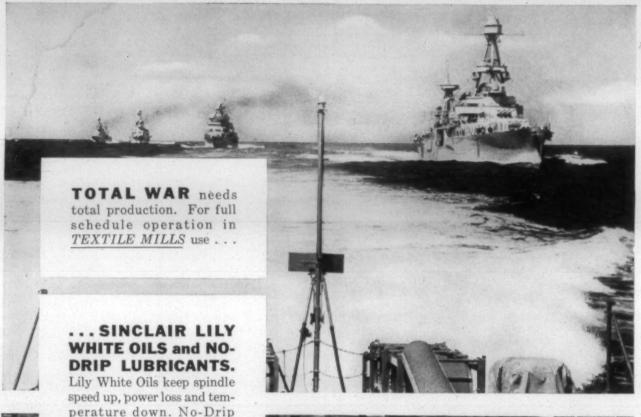
US BOBBIN & SHUTTLE CO.

With U S "split" stock the turning

follows the grain. Makes stronger, smoother, better balanced, truer

OF QUALITY AND SERVICE

running, longer lasting bobbins.





SINCLAIR TEXTILE LUBRICANTS

FOR FULL INFORMATION OR LUBRICATION COUNSEL WRITE NEAREST SINCLAIR OFFICE SINCLAIR REFINING COMPANY (Inc.)

2540 WEST CERMAK ROAD CHICAGO 10 WEST 51ST STREET NEW YORK CITY RIALTO BLDG. KANSAS CITY 573 WEST PEACHTREE STREET
ATLANTA

FAIR BUILDING FT. WORTH th

is

of th

th

d

Va

TI





Vol. 64

April 15, 1943

No. 4

National Resources Planning Board's Recommendations Are Analyzed

By DR. GUS W. DYER, Economic Advisor Southern States Industrial Council

WO METHODS of establishing socialist or communist governments are recognized by radical leaders: the quick method of revolution and the more effective method of evolution. The method of evolution meets less opposition, since it gives time to make the radical changes gradually by methods of concealment that keep the people in the dark with reference to the nature of the revolution.

The assumption that the recommendations submitted by the National Resources Planning Board is a plan for establishing a system of communism in this country is based on inferences from the facts stated in the report.

The basic principles of communism are as follows:

- 1. The government assumes the obligation and responsibility of taking care of all the people all the time.
- 2. The sanctity of private property is repudiated; the government assumes the authority to take property at will from those who have produced it, and give it to those who had no part in its production.
- 3. Under communism the government controls all business, and eventually owns all the industries.
- 4. Under communism the government controls the school system and determines what shall be taught in the schools.

Government Obligation

Under the board's plan the Federal Government assumes the obligation of insuring jobs for all who are able to work, at decent pay, regardless of whether or not they can pass a mental test. The goal of the minimum "decent wage" is over three dollars for eight hours' work. The Government is obligated to give every man, every woman, every boy and every girl a job at the "decent wage" regardless of how little they produce. The plan further provides that the Government must provide all with "socially desirable jobs" -jobs that carry social prestige. Just how the great mass of work that is without social prestige is going to be done, the planners do not explain. The plan further provides that the Government must provide adequate food, adequate clothing and adequate housing for all, regardless of the value of what they produce.

The plan is 100 per cent communistic on the communist principle. Under this plan, following the lead of communism, the sanctity of private property, protected by the Constitution, is practically abolished. When the administrative Government is free to take property from one individual and give it to another, and from one class and give it to another, the sanctity of private property is gone. When the administrative Government adopts this policy of taking from some and giving to others at will, it really accepts the fundamental principle of communism—that the property of the people should be held in common and distributed as those in charge of the Government desire.

Property To Be Taken Away

Property valued in billions must be taken away from those who have produced it, in order that 40 million people may be fed and clothed and housed on the basis of a high standard of living; and other billions must be spent to keep them from falling below this standard.

Every worker—every man, woman, boy and girl worker -must be paid a living wage-over three dollars a dayregardless of how small the value of their services. The billions paid them over and above the value of their services will be taken from the property of the thrifty, efficient workers; thus, thrift will be penalized and laziness and inefficiency will be rewarded under this communist policy

of property held in common.

This communist plan provides that the Government assumes the obligation of supplying every boy and girl in the nation with the money needed to take them through school from the kindergarten through college. In 1938, 25,975,-108 pupils were enrolled in the public schools. To meet the expenses of the millions of whites and negroes who accept the Government's bounty, billions of dollars will have to be confiscated from the thrifty, efficient workers under this communist policy of property held in common. Where the wealth will come from to meet this enormous communist demand, no explanation is given by the plan-

This plan is 100 per cent communistic on the second

principle of communism; namely, that the property of the nation must be owned in common by the people.

The method of the plan in extending and finally establishing the communist principle of Government control and ownership of the industries of the country is clearly outlined by the planners. It is the method of concealment by indirectness. To make it acceptable to the crowd, it is called the extension of democracy. This is an old trick of the radicals.

Plan for Industry Control

To bring about complete control of industry, the following policies are outlined in this communist plan:

1. The extension and new development of joint and private and Government partnership in business.

2. The distribution of Government-financed war production plants among numerous private operators "to encourage healthful business competition and prevent monopoly."

3. The consolidation of railroads in order to provide for low cost for post-war traffic, express highways and expanded air transport. The low-priced transportation produced at high cost may destroy the private capital invested in railroads, but it will be popular, and the Government may shift its losses to the taxpayers and take over the railroads under the pretense that conditions compelled Government ownership.

4. Under the plan, labor is "protected in its safeguards of democracy." "Labor must claim its right of collective bargaining." This means that labor must be given the authority to repudiate constitutional industrial freedom and substitute compulsion for freedom in making agreements with employers. A bargain is simply a contract, and everyone knows that compulsion by either party in a contract or

Renegotiation Clearance Expedited

Clearance under the renegotiation act is expedited by the release April 7 of new forms for financial and cost statements by war contractors. The forms are issued by the price adjustment boards of the War, Navy and Treasury Departments and the Maritime Commission.

Any war contractor who files his figures on one of these forms will be automatically cleared of obligation to submit to renegotiations unless requested to do so within one year after the filing. If requested to appear for a review, the progress of the procedure will be expedited by the fact that the interested board will already have had access to the basic figures.

Provision for these new forms was made through congressional amendments which removed objectionable features of the act as originally passed.

If, upon examining the facts submitted on the new forms, the interested department finds that excessive profits may be realized, the interested board will communicate with the contractor. It will then be decided whether there is to be any further action.

Details as to the data required are explained on the new forms which can be obtained through any of the four departmental price adjustment boards, or by writing to Assignment Office, Price Adjustment Board, P. O. Box 2707, Washington, D. C.

bargain renders the contract void. The so-called right of collective bargaining is the right to abolish collective bargaining. In addition, under the communist plan, labor unions must be given a place of authority in organizing and directing industries.

As the Government enters private business as a joint partner, we will have a tripartite type of business direction. This will be made up of representatives of the Government, the labor unions and private business. Since the representative of the labor dictatorship and the representative of the administration rarely disagree, the vote in directing the business may be counted on as a two to one poll.

If the business goes into the red, this will not be serious either to labor or the Government. Labor will continue to be paid in full and the Government will charge up all losses to the blind taxpayer. But it will mean destruction to private capital. It will be to the interest of communists to put the business in the red, since this will be the easiest road to Government ownership and communism.

The distribution of Government-financed plants among numerous operators to encourage "healthful business competition and prevent monopoly" is a bold stroke in the interest of the communist policy of Government ownership. It will be easy for the Government plants to reduce prices far below cost, conceal the losses, and thus destroy private business and lead the ignorant public to accept the communist policy of Government ownership as superior to private ownership.

Waste in Government Operations

As an example of Government inefficiency in business, 3,000,000 people are now employed by the Federal Government to carry on its business. It is estimated by Senator Byrd, a successful business man, that 1,000,000 of these employees could be dismissed without any loss in essential service. If the average salaries paid to these unnecessary employees is estimated at \$2,000 a year, the taxpayers are paying \$2,000,000,000 a year to keep 1,000,000 employees on the payroll who are not needed.

With private business taxed to the limit to carry out this communist plan, and directed and controlled by labor union and Government officials, the outlook for American private enterprise is dark in the extreme. As private business goes down and out under Government and labor dictatorship pressure, communism will come into its own by the process of gradual evolution.

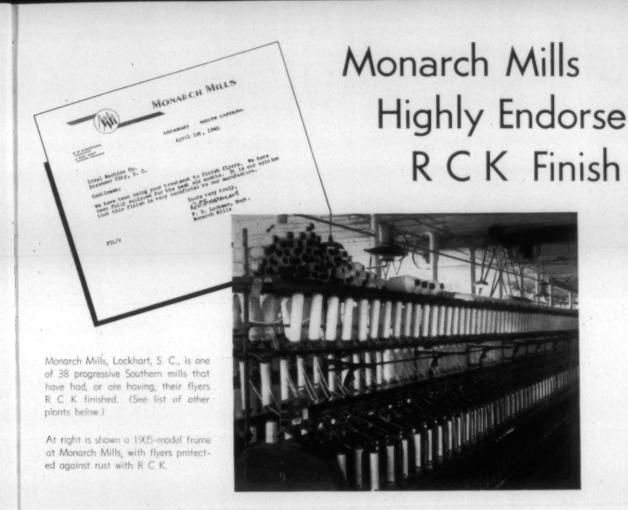
That this communistic plan is submitted to Congress for adoption is a revelation of the direction in which this nation is moving, morally. Every congressman is bound under oath to preserve, protect and defend the Constitution. This means that every congressman is bound under oath to preserve, protect and defend private enterprise under constitutional industrial freedom. The communistic plan submitted is fundamentally antagonistic to the very foundation of constitutional industrial freedom. Anyone who claims that there is any sort of authority in the Constitution for the adoption of this communistic plan, it is believed, is grossly deceiving himself or is shamefully seeking to deceive others.

Tenth Bill of Rights Suggested

If this plan is adopted, it is suggested that a tenth Bill of Rights be added to the nine given under the "New Bill of Rights." This would make the new Bill of Rights cor-

(Continued on Page 54)

Abb Alat Avoi Avoi Avoi Call Care Chie Con



RCK IS A SMOOTH, GLOSSY, BLACK, RUST-RESISTING FINISH FOR FLYERS

Since May, 1942, we have applied R C K to flyers in well known mills throughout the South. Seldom has any new development in the textile industry met with such an enthusiastic reception and acclaim.

The Following Mills Have Had, or Are Having, Their Flyers R C K TREATED

Abbeville Mills, Abbeville, S. C.
Alabama Mills, Dadeville, Ala.
Alabama Mills, Haleyville, Ala.
Avondale Mills, Birmingham, Ala.
Avondale Mills, Catherine Plant, Sylacauga, Ala.
Avondale Mills, Scentral Plant, Sylacauga, Ala.
Avondale Mills, Sycamore Plant, Sycamore, Ala.
Callaway Mills, Unity Plant, LaGrange, Ga.
Carolina Mills No. 1, Maiden, N. C.
Carolina Mills No. 2, Newton, N. C.
Chiquola Mfg. Co., Clifton, S. C.
Clifton Mfg. Co., Clifton, S. C.
Convenience, Inc., Red Bank Mill, Lexington, S. C.

d

n

is

43

Gafiney Míg. Co., Gafiney, S. C.
Henrietta Mills, Cherokee Falls, S. C.
Mandeville Mills, Carrollton, Ga.
Martel Mills, Lexington, S. C.
Matthews Cotton Mills, Greenwood, S. C.
Monarch Mills, Monarch Plant, Lockhart, S. C.
Monarch Mills, Monarch Plant, Union, S. C.
Monarch Mills, Ottaray Plant, Union, S. C.
Monarch Mills, Ottaray Plant, Union, S. C.
Montgomery Cotton Mills, Montgomery, Ala.
Mt. Vernon-Woodberry Mills, Tallassee, Ala.
Opelika Mills Co., Opelika, Ala.
Pacific Mills, Lyman, S. C.
Pacific Mills, Columbia, S. C.

Pacolet Mills, Pacolet, S. C.
Riverside & Dan River Cotton Mills, Danville, Va.
Springs Cotton Mills, Eureka Plant, Chester, S. C.
Springs Cotton Mills, Springstein Plant, Chester, S. C.
Startex Mills, Tucapau, S. C.
Thomaston Cotton Mills, Griffin, Ga.
Thomaston Cotton Mills, Thomaston, Ga.

S. C.
Startex Mills, Tucapau, S. C.
Thomaston Cotton Mills, Griffin, Ga.
Thomaston Cotton Mills, Thomaston, Ga.
U. S. Rubber Co., Winnsboro Mills, Winnsboro, S. C.
Victor-Monaghan Co., Greenville, S. C.
West Boylston Mig. Co., Montgomery, Ala.
West Point Mig. Co., Langdale, Ala.
Willingham Cotton Mills, Macon, Ga.

Not included in the above list are a number of other mills that are now trying out the R C K Process.

Complete Information on Request

IDEAL MACHINE SHOPS BESSEMER CITY, N. C.

19th Year of Continuous Service to the Textile Mills

PRACTICAL TEXTILE DESIGNING

PART EIGHT

By THOMAS NELSON

Dean of the Textile School, North Carolina State College, Raleigh

Dean Nelson's eighth installment in his series on textile designing deals with skip twills. His next article, to appear in the May 1 issue of Textile Bulletin, will take up steep twills.

SKIP TWILLS are derived from the regular twills and are somewhat after the order of broken twills. The essential difference between broken twills and skip twills is that in broken twills the pattern is made by reversing the twills at the locking point, whereas in skip twills the twill is not reversed at the locking point but is continued until the repeat of the pattern is obtained. These patterns are obtained by drafting two, three, or more threads of a twill weave then skip a number of threads, and begin again with two, three, or more threads of the same twill weave so that a perfect "locking" will take place. This will be repeated until the whole pattern repeats itself.

Fig. 97 illustrates the skip twill having for its basis the $\frac{3}{3}$ twill, three threads in each section. Pattern is complete on 18 threads and six picks.

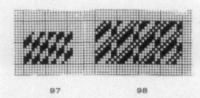


Fig. 98 illustrates the skip twill having for its basis the $\frac{3}{1}$ twill, six threads in first section, two threads in

second section. Pattern is complete on 32 threads and eight picks.

These patterns can also be made by combining a right hand twill with a left hand twill, which gives a broken twill where the two portions are joined together. This is illustrated at Fig. 99. The base pattern used being

the
$$\frac{3 \ 3 \ 1}{1 \ 3 \ 3}$$
 twill, three threads in each section. Pattern is

complete on 48 threads and 14 picks. In order to determine the number of threads on which the pattern is complete, use the following rule: Multiply the number of threads in base pattern by the number of threads in one section of the pattern.

Take for example the Fig. 97. Number of threads in base pattern is 6; threads in section 3; 6×3=18 threads.

If the pattern has a different number of threads in a section use the following rule: Multiply the number of threads in base pattern by the average number of threads in sections used.

Take for example Fig. 98. Number of threads in base pattern is 8; threads in first section 6, in second section 2; average equals 4; 8×4=32 threads.

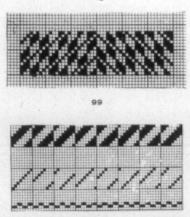


Fig. 99 illustrates the design, drawing in draft and reed plan of a fabric constructed from a skip twill. The $\frac{4}{4}$ twill is used with eight threads to a section.

Various Degree Twills

To illustrate the different degree twills that can be constructed Figs. 100 to 108 are given. This clearly illustrates the different moves necessary to produce a twill at a given angle.

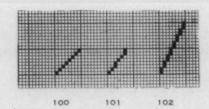


Fig. 100 illustrates the 45 degree regular twill by moving one point.

(Continued on Page 60)



1. A SIMPLE FORMULA
2. LOW KETTLE COST
2. LOW KETTLE COST
3. HIGH BREAKING
3. HIGH BREAKING
4. ELASTICITY AFTER
5. FREEDOM FROM
5. FREEDOM FROM
5. FREEDOM FROM
6. READY WEAVABILITY
7. FEWER LOOM STOPS
7. FEWER LOOM STOPS
8. EASY DE-SIZING
9. THAT "EXTRA" QUALITY
HELPFUL SERVICE
HELPFUL SERVICE

ds. ecof ids

ase

reed

conrates

iven

ving

2. Low kettle cost ...

HOUGHTO-SIZE is highly concentrated and extremely low in moisture content. That means less size compound per kettle, hence lower cost. Actual mill figures show savings ranging from 25% to 50%. Only 5% of softener based on weight of starch is required. Fewer ingredients, and less poundage with HOUGHTO-SIZE, means lower kettle cost - which is but one advantage of the many listed on this page. For the full story, write for the folder "Step Up Warp Sizing Efficiency".

E. F. Houghton & Co.

303 W. Lehigh Ave., Philadelphia, Pa. 1301-05 W. Morehead St., Charlotte, N. C.

HOUGHTO-SIZE

J. Craig Smith Praises War Effort of Alabama Cotton Mills*

WE are gathered for our second wartime annual meeting. It seems fitting and proper that we should leave our jobs for a few hours to meet together, briefly review the past year, elect new officers and make plans for the year ahead. I know we will all go home from this meeting doubly determined to do our bit to the end that at our next meeting and that at similar meetings attended by our sons and grandsons in the years to come that the lights will be on again in every port over which our flag flies.

At our last annual meeting Ben Russell suggested the slogan, "Utmost Production for Victory." I think that the record of the textile industry in Alabama during the past year entitles us to the slogan's continued use. Our organization has a right to speak for the industry because every cotton mill of any consequence in Alabama is now a member of our association.

Cotton Consumption Increased

The mills in Alabama have increased their cotton consumption from 833,492 bales in the 12 months ending February 29, 1940, to 1,335,105 bales in the 12 months ending February 28, 1943. This has been done with no increase in the amount of equipment. Please note that I have measured this increase in bales, not dollars. Some industries have spoken of their increased production in terms of dollars which is not an accurate index of increase because of higher prices. During this period there has not been one mill that has closed for one hour because of any

*Address of retiring president at meeting of the Alabama Cotton Manufacturers Association, Birmingham, April 16. J. Craig Smith is vice-president and treasurer of Avondale Mills, Sylacauga, Ala.

American Association Will Hear Murchison and Morrison

Dr. Claudius T. Murchison, president of the Cotton-Textile Institute, and Fred Morrison of Gardner and Morrison, Washington, D. C., will be the only outside speakers at the American Cotton Manufacturers Association meeting in Atlanta, Ga., April 30. The Atlanta-Biltmore Hotel will be the site for the one-day convention.

The morning session will be preceded by a meeting of the board of governors from 10 to 12 a.m. A luncheon meeting will begin at noon, during which the reports of President Herman Cone and Secretary-Treasurer William M. McLaurine will be presented. The afternoon business session will feature committee reports, consideration of resolutions and election of officers.

type of labor dispute. In my opinion, there is no more patriotic group in America than the men and women who keep the machines running in the cotton mills of Alabama.

There are 31 mills in Alabama flying the Minute Man "T" Flag. This means that 90 per cent or more of their employees are investing each payday ten per cent or more of the total payroll in war bonds. Every mill in the state except three is participating in the payroll deduction plan, and one of these has installed a bond selling plan which is acceptable to the U.S. Treasury Department. Our secretary has spent much of his time in recent months promoting the sale of war bonds. I wish every cotton mill in Alabama would fly a Minute Man "T" flag. It can be done if we will submit the matter properly to our people. During the American Revolution not all the militia were loyal. Not all could be counted on to be in their places when needed. Those members of the militia who could be counted on under all circumstances were designated "minute men." It is highly fitting that the minute man should be the symbol on our war bond flags.

Industry generally in Alabama did splendid work in turning in needed scrap for the war effort. We are proud of the fine part that the cotton mills had in the scrap campaign and of the part our association had in encouraging

Workers in Uniform

There are now more than 3,000 of our former employees in the uniform of their country. These men are being penalized by the loss of their unemployment compensation benefits and their Federal Social Security benefits. Your board of directors instructed me to take this matter up with Governor Sparks in regard to the unemployment compensation benefits and with our congressional delegation in regard to the Social Security benefits. Governor Sparks has indicated that he will bring the question of freezing unemployment benefits for men in the service before the legislature and our congressional delegation has expressed itself favorably toward the idea of freezing social security benefits for men in our armed forces.

In common fairness to our former employees now in uniform, we should continue to insist that these two things be done even though the result of freezing the unemployment compensation benefits might be higher tax rates for our mills

During the year your association has inaugurated a system of helping textile workers who have moved from one of our mills to another community in Alabama in which there is another of our mills, to find employment in their new location. This system has worked very well initially

A 7 WAY FLEXIBILITY-PLUS!

The seven points of flexibility in the Foster Model 102 winder are sufficient buying reasons for almost any mill in these days of sudden conversion and an uncertain future. Nevertheless this machine offers PLUS advantages, including operating convenience which contributes to TWICE THE PRODUCTION WITH 1/3 LESS COST,

as compared with older models.



For example, the empty-bobbin conveyor is BELOW the bobbin pins, so that the operator merely drops the bobbins when doffing, no lifting up, around or over.

FOSTER MACHINE C

The conveyor also runs UP at the end of the machine so it can discharge DIRECTLY into a standard sized truck. No small boxes, no rehandling. New machines may be equipped with double conveyors so that when different bobbins are used on each side of the machine they will not be mixed.

The 7 Flexibility Features

- Any kind or count of staple yarn.
- 2 Any outside taper of straight or convex base cones.
- 3 9 different angles of wind from 9° to 18°.
- 4 Will wind package dyed yarn even if damp.
- 5 May be equipped with emulsion attachments.

- 6 Changeovers from cones to tubes, or vice versa, simple and comparatively inexpensive.
- 7 One side tubes and other side cones, if desired.

Let Model 102 Flexibility prepare you for the future

FOSTER MACHINE CO., WESTFIELD, MASS.

Southern Office, Johnston Bldg. Charlotte, N. C.



FOSTER MODEL 102

FOR WINDING COTTON, MERCERIZED, WOOLEN, WORSTED, MARINO, SPUN SILK AND SPUN RAYON YARNS

Safety Through Advanced Job Analysis

By J. A. FIFE Ware Shoals (S. C.) Mfg. Co.

IT IS a fine and necessary practice to investigate thoroughly the causes of an accident, but how much better to have done so before the accident, maybe to have prevented it entirely or at least averted serious injury. This is the meaning of advanced job analysis.

In our discussion we are concerned with this matter of job analysis as it can be of value in the textile industry. Our industry is a large one, but unlike many other large industries, ours is made up of a number of relatively small companies. I am thinking particularly of cotton mills. Only a few have the services of a full time safety engineer. There are numbers of mills which do not have a personnel department or even a distinct employment department. Safety is just a part of the job and gets whatever emphasis the regular lines of supervision have time and see fit to give to it. These are the mills we want to consider particularly.

In order to see how our job analysis idea can help in these mills, let's first see into the workings of their present safety set-up. I personally worked in three different cotton mills for a total of nearly six years before I ever heard of a safety meeting. They were being held, no doubt, one way or another. But whatever things of value that were discussed were not coming back to us on the job.



Because of the current nation-wide need for prevention of industrial accidents, reduction of absenteeism, and other factors that cause lost time and slow up production, examples of workers who have made exceptional records of many years of service without lost time of any description are of more than usual interest. The six men shown above, employed in the spinning department of the American Viscose Corp. rayon plant at Parkersburg, W. Va. have a total of more than 68 years of service without a single day of lost time for any reason. The men, with the period of time that each has worked without lost time are, left to right: Russell Dugan, 12 years, one month; Clyde Smith. nine years, six months: Claude A. Dotson, 11 years, one month; William L. Curtis, 15 years; and Rutherford R. McCauley, 11 years, seven months.

First, I expect the meetings were more or less the same each time, dull, with no vital spark of interest. Probably reports of accidents were given, maybe some discussions as to why some of them occurred. All routine. Then, too, the groups were probably composed of overseers, maybe a few second hands. All of these had plenty of other supervisory things on their minds. Safety did not make a lasting impression among these other things. Naturally, little was relayed on to us.

Now these have been described in the past tense. If we will be truthful, I expect that most all of us can say that at least some of these things are true today in our mills when it comes to safety matter. Just what are the needs of a well rounded safety program for the average cotton mill?

A Good Safety Program

First, vitality. The program must have life. To use an overworked expression, all the line of supervision must be "safety conscious." Foremen, second hands most certainly, and if the superintendent is not, they will not.

Second, the safety co-operation of each employee. He or she is the ultimate goal of the safety program.

Third, a systematic study and analysis of accidents and the jobs on which they occur.

Fourth, a systematic follow-up of safety regulations, rules, results of investigations, etc.

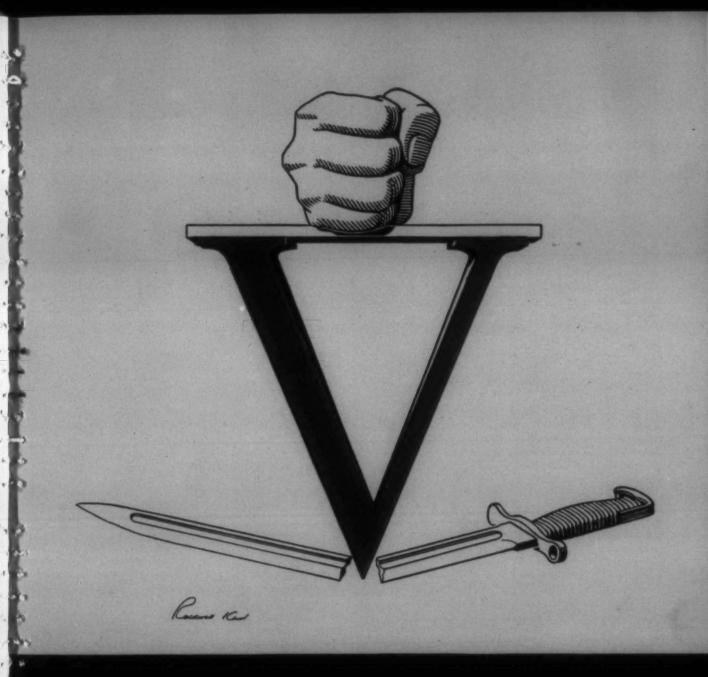
Fifth, no complicated organizational set-up, but rather the supervision of the safety program to a large degree through the regular channels. This would be particularly helpful in the smaller mills.

There are, however, at least four basic factors that must be observed regardless of the exact procedure. Without these the whole idea of job analysis will fall through.

The logical starting place is with the people on the job. These people are in direct contact with what is done. They know how it is being done. They know of particular hazards, accidents, and still more important, the near accidents that have occurred in the operation of some job being studied. They have their own pet safety practices. Then, too, the men and women on the job are the ones for whom the entire safety program is set up. Accidents to foremen and overseers are rare. The ones doing the work are the ones who need be, and whom we want to be, most interested.

A second key point is the careful and observant listing of each step or operation in the execution of a job. This is the frame work upon which the entire analysis will hang. We can call this the primary analysis. Care should be taken to ask "why" or "how" a certain thing is done as it is.

(Continued on Page 56)



WE ARE DISCOVERING SOMETHING IN THESE DARK DAYS OF WAR. . We are discovering

that our America is just about twice as strong, twice as capable and twice as productive as we had ever before imagined. We are proving in the shop and in the forge and in the factory that there is no physical achievement which may be desirable that is impossible to us. We can do, as a people, anything...literally anything...that we want to do.

DONALD NELSON

Treating Army Lightweight Protective Covering Materials

By ALLISON FITZGERALD - PART ONE

Beginning with this issue Textile Bulletin presents a series of articles covering the processing, dyeing and finishing of cotton, aralac, acetate and viscose rayon fabrics that possess great importance and value for military and civilian uses. This valuable series is being compiled on the basis of best plant procedure and will cover detailed recommendations that should prove of great reference value for plant and technical officials in both the production and sales branches. Plant chemists and purchasing agents will be particularly interested in the brief summarization of technical recommendations given for different operations such as desizing, boiling-off, scouring, temperature control, acid and alkali resistant agent treatment, application of new types of coloring agents and cellulosic carriers, and special finishes required to meet the many new military and civilian specificatons.

A RMY lightweight constructions cotton goods used for protective coverings can be grouped under three general classes of materials. These are:

COMFORTERS, O. D.—P. Q. D. No. 134, February 12, 1942.

C-1a. (1) Cloth for Type I—Shall be made from a 38½-inch, 64x60, 5.35 yard gray print cloth; the dyed and finished cloth shall conform to the following requirements:

Weight Per Square Yard	Thread Count	Breaking Strength 1x1x3 Grab
Ounces	Per Inch	Pounds
(Minimum)	(Minimum)	(Minimum)
27	65×56	40x20

C-1a (2) Cloth for Type II—Shall be made from a 39-inch, 80x80, 4.00 yard gray sheeting or a 68x72, 3.50 yard gray sheeting. The dyed and finished fabrics shall conform to the following minimum requirements:

Weight Per Square Yard		d Count	Breaking Strength 1x1x3 Grab Method Pounds		
(Ounces)	Warp	Filling	Warp	Filling	
3.3	84	72	60	40	
4.6	74	66	70	50	

C-1b. Color—The cloth shall be evenly dyed an approved shade of olive drab (the use of sulphur colors is prohibited), and shall show good fastness when subjected to the following tests:

C-1b (1) Fastness to weather; samples to be exposed for five days.

C-1b. (2) Fastness to dry cleaning.

C-1b. (3) Fastness to water.

BARS, INSECT, FIELD—P. Q. D. No. 263, September 12, 1942 (light and heavy mosquito sheeting bars—3.75 and 2.50).

C-1c. Sheeting—For reinforcements shall be an approved shade of olive drab, cotton sheeting and conform to the following minimum requirements:

0				
Weight Ounces Per	Texture	Breaking Strengt	h Shrinkage Maximum	
Square Yard		Warp Lbs. Filling		Width
5.0	52x45	50x55	5%x5%	35"

C-1e. Color—The color of all component items shall show good fastness when subjected to the following tests:

C-1e (1) Fastness to weather; samples to be exposed for ten days.

C-1e (2) Fastness to water; test to be conducted as outlined in Section 13, Paragraph 6, of Federal Specification CCC-T-191. (The use of sulphur dyes is prohibited.)

NETTING, COTTON, INSECT, MARQUISETTE, 1.8 OZ.—P. Q. D. No. 260, September 9, 1942.

B-1. Type—Netting, Cotton, Insect, Marquisette, 1.8 oz., shall be of one type.

E-1. Color—The netting shall be evenly dyed an approved shade of olive drab and shall show good fastness when subjected to the following tests:

E-1a. Fastness to weather; samples to be exposed for ten days.

E-1b. Fastness to water; test to be conducted as outlined in Federal Specification CCC-T-191. The use of sulphur dyes is prohibited.

E-2. Width—Shall be 38 inches, including a 3/8-inch leno or solid selvage on both sides.

E-3. Physical Requirements—The finished netting shall conform to the following:

Weight Per Square Yard Thread Count Ixix3 Grab Meshes Ounces Per Inch Maximum Warp Filling Warp Filling Sq. in.

1.8 50-52 50-52 28 20 625-676 .03x.0325

E-5. Shrinkage—When subjected to tests for "Shrinkage in Laundering," as outlined in Section XIV of Federal Specification CCC-T-191, the netting shall not shrink more than eight per cent in the direction of the warp, nor more than eight per cent in the direction of the filling.

E-6. Finish—The netting shall be singed, well mercerize dand given a permanent finish of such a character as to make it resistant to slippage of the warp threads along the filling, and shall be sized to a character of finish equal to an approved sample. The permanent finishing materials shall not be appreciably removed when laundered three times in accordance with the procedure for cotton textiles given in Section XIV, Federal Specification CCC-T-191.

The new fastness to water for all of these protective covering materials has been amended to read as follows (quoting from No. 669-43 Philadelphia Neg. 100, Sheet No. 3,

(Continued on Page 22)

RAYON REPORTS

Presented monthly by American Viscose Corporation, New York, N.Y.

APRIL, 1943



BETTER LIGHT! Perhaps you thought that the kerosene lamp was a thing of the past. But such is not the case-not by a long shot. Such lamps still provide the sole source of nighttime illumination in thousands of homes without electricity. For over a decade, continuous filament rayon yarn has been used successfully in the incandescent mantles for these lamps, used in conjunction with ramie and other natural fibers. Recently the shortage of the latter fibers led to investigation of possible replacement materials by one of the country's largest incandescent mantle manufacturers. "Avisco" spun yarns proved ideal. The characteristics of these yarns, it was determined, improved the ceramic structure of incandescent mantles and enabled them to throw more even light. Several thousand pounds of "Avisco" yarns are now being delivered monthly to mantle manufacturers for this use.

STANDARDIZED NAMES—The British Rayon Council recently recommended a unification of terminology in the rayon trade, and suggests the following terms:

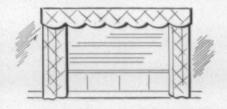
-	
STANDARD TERM	DEFINITION
Rayon Fabrics	Continuous filament rayon yarn Fabrics made from rayon yarn Waste from rayon yarn
Rayon Staple	Rayon staple fiber
	Yarn spun from rayon staple Fabrics made from spun rayon yarn
Spun Rayon Waste	Waste from rayon staple and from spun rayon yarn

We think that the adoption of such terms would help to avoid confusion.

LOOK OUT BELOW—American fighters have a useful ally—and America's enemies a formidable foe—in the fragmentation bomb. These bombs are anti-personnel bombs dropped at low altitudes for sure results. In order to give plane pilots time

enough to get away from the exploding bombs, rayon parachutes are used. Rayon is of value here because of its great strength. This characteristic makes rayon valuable for similar uses in cargo parachutes, and in tow targets on which fledgling aerial machine gunners practice hitting Japanazis.

MORE NEW USES-Constant laboratory research and experimental work on rayon staple-much of it conducted long before the war-is proving priceless today. This work has made it possible for rayon staple to be used with complete satisfaction in many products formerly made with natural fibers, of which there are now shortages because of the war. In some cases, rayon has proved superior to natural fibers formerly used. Some of the most recently developed uses include: mittens and gloves, shoe fabrics, babies' diapers, interlinings for men's suits and Army officers' uniforms, and sweaters that formerly were made from fine cashmere and angora wools.



"CROWN"* TESTED CURTAINS-

Having successfully met the "Crown" Tested Plan requirements, Queen Valley Fabrics, Inc., manufacturer of "Queentex" curtains, has been licensed as a manufacturer and finisher of "Crown" Tested rayon window curtains under the "Crown" Tested Plan of the Corporation. This company is one of the country's largest manufacturers of rayon window curtains and is unique in that it possesses facilities for handling the complete processes of manufacturing from yarn to finished products. Curtain fabrics are produced on the company's own looms and are then finished and tailored in its own plants. This means that the quality of their products can be controlled at every step of the manufacturing process.

RAYON IN WORK CLOTHES-The recent WPB order M-207, which established tighter restrictions on fabrics for use in women's work clothing, has been subject to some misinterpretation, particularly in connection with its reference to the use of rayon and rayon mixture fabrics for such clothing. The order did not prohibit the use of rayon fabrics in women's work clothing, as has been reported in some quarters. What it did state was that the A-2 priority rating formerly applicable to rayon fabrics for use in women's work clothing could no longer be used. Rayon and rayon mixture fabrics can still be used in work clothing and are being used in important quantities in this field. Manufacturers of such garments, however, can no longer buy such rayon fabrics as priority items.

Daily News Record, in explaining the order, wrote: "It is explained that the fabrics listed from the order by the amendment, including rayons and rayon mixtures, are removed, not because they are considered unsuitable for women's work clothes, but because they are needed for other essential uses."

*Reg. U. S. Pat. Off.

Copr. 1943-American Viscose Corp

4-PLY SERVICE ...



Fiber research helps you get the right yarns; fabric development helps you design new fabrics; The Textile Unit helps

you solve mill problems; and CROWN

Tested gives you scientific performance facts on finished fabrics containing CROWN Rayon—are all part of our 4-PLY SERVICE. All are designed to help you make the best possible use of the available yarns and fibers. Make use of the 4-PLY SERVICE!

AMERICAN VISCOSE CORPORATION

Producers of CROWN® Rayon Yarns and Staple Fibers

Sales Offices: New York, N. Y.; Charlotte, N. C.; Providence, R. I.; Philadelphia, Pa. Plants: Marcus Hook, Pa.; Roanoke, Va.; Lewistown, Pa.; Nitro, W. Va.; Parkersburg, W. Va.; Meadville, Pa.; Front Royal, Va.

Par. E-16, Fastness to Water, Section XIII, Paragraph 6 of Federal Specifications CCC-T-191a):

"Fastness to Water-A Specimen of the colored material measuring about two by five inches is taken for test. Approximately two-inch squares of undyed wool or test cloth with various fiber floats woven into it and bleached but not starched cotton cloth are sewed or otherwise firmly attached to opposite ends on the same side of the text specimen. The specimen is weighed, air dried and successively immersed in distilled water at 80° plus or minus 5° F., and passed flat through a wringer several times until the amount of solution retained is 100, plus or minus ten per cent. The specimen is then tightly wrapped, with undyed pieces inside, around a glass rod. The rod is fitted into a one-hole stopper which in turn is placed in a six by one-inch test tube. The whole apparatus is then placed in an oven or water bath and heated to 100 plus or minus 2° F. (approximately 38 plus or minus 1° C.) for two hours. The specimen is then dried out of contact with the bleed piece by pressing between white cloth with a moderately hot iron (275 to 300° F.) When heavy fabrics are to be tested, the specimen size is reduced to two by two and one-half inches and the undyed squares of cloth are attached to opposite sides of the test specimen. The change in color and staining of the white material are considered in rating the fastness to water."

XIII. COLOR FASTNESS.

1. General Method of Evaluation.

1a. When no standard sample has been established, the tested specimen shall be compared with the original material and rated on the following basis:

Good: No appreciable alteration of color.

Fair: Appreciable but not objectionable alteration or color.

Poor: Objectionable alteration of color.

The judgment of the inspector may be aided by comparison with material from former satisfactory purchases if these are available. Such material should be tested at the same time and in the same way as the material to be graded.

1b. When a standard sample has been established, specimens from the material to be graded and from the standard shall be tested simultaneously and in the same way and rated in fastness on the following basis:

Satisfactory: Equal or superior to the standard in fast-

Unsatisfactory: Inferior to the standard in fastness.

Fastness to Weather—A specimen of the material is exposed continuously for ten days (unless other specified) at an agle of 45° from the horizontal, facing south, on a roof



Dramatizing the theme, "Cotton Fights on Every Front," the poster designed for the 1943 observance of Cotton Week pictures the close relationship that exists between the cotton textile industry and the military forces.

Cotton Week this year will be observed during the period May 17 to 22. The Cotton-Textile Institute and National Cotton Council are sponsors of the event.

or other exposed place. The fading is judged by comparison of the exposed specimen with unexposed material that has been set aside for the purpose. When comparison is to be made with a standard sample, if the specimen fades distinctly less than the standard sample in some shorter period of exposure than that specified, it may be rated as of satisfactory fastness without continuing the exposure for the full period of time.

These different protective covering goods have been under process for the past year, so the writer in this article will attempt to sum up those general working methods which have and are proving satisfactory and economical for plants processing these different types of goods.

Comforter cloth, being of lighter weight nature, has been dyed direct from the bale of gray goods without any preliminary singeing, desizing, kiering or bleaching. The merit or demerit of dyeing from the bale is not for the writer to discuss but is purely a question to be settled between the dyer and quartermaster inspector when the finished goods are inspected for approval.

It is best for all methods of dyeing, either by direct, vat or pigment colors, that comforter cloth be given a desizing and kier boil of at least three to six hours. A bleach is not always necessary but when the goods are given a light peroxide bleach or chlorine bleach, the kiering time may be reduced to a minimum of three hours hours. The prepared goods are dried, ready for the dyeing operation.

Comforter cloth has been mainly dyed with selected direct colors, then given either a waterproofing or some type of aftertreatment to meet the quartermaster specifications. There has been considerable experimental work on the use of pigment colors with the various water soluble and cellulose resins as well as the alkaline sodium cellulose solutions which require neutralizing. The use of these cellulose solutions requires special drives and feeds for the usual plant padders to make these processes work out correctly; so for this reason, many cloth dyeing and finishing plants found these methods required too much labor, special equipment for preparing pigment color pastes, and production was much slower than by the standard direct color dyeing procedures which are discussed in the following paragraph.

Greige comforter cloth, direct from the bale, can be dyed on jig by giving two to four ends in a soda ash and penetrant prescour, draining this bath and dyeing for eight to ten ends at a near boil with excess penetrant. The dyed goods show a slight mottled appearance and the selvages are usually much lighter and off-shade from the rest of the

If a finishing plant's kiering and bleaching equipment is so tied up that a dyer cannot get the comforter cloth kiered and bleached before dyeing, it should be given a desizing operation and a good washing before trying to dye it on a jig; otherwise, a dyer may have a high percentage of dyed goods to rework before it will pass for level and evenly dyed shades.

On kiered or kiered-bleached goods the usual jig dyeing procedure is as follows:

- 1. Start goods onto jig through wet-out bath at 120° F., give one extra end at 140° F. if goods not bleached.
- 2. Enter dissolved dyestuff on first and second ends, raise boil, run two ends.
- 3. Add salt in two portions on fifth and sixth ends, sample on seventh.

(Continued on Page 50)

PROVING ITS Extra Value UNDER CONTINUOUS OPERAT

Present operating conditions in the textile industry soon demonstrate just which machinery and equipment can "take it."

In this crucible, PIVOTAN is proving its extra value—as expressed in greater flexibility, durability and gripping qualities, and its special adaptability to withstand the extreme

speed and rapid flexing imposed on shortcenter drives.

These plus values of PIVOTAN are the result of an exclusive tanning formula developed by us to give leather extra gripping and flexing qualities. Try PIVOTAN, and see for yourself.

Made by

7.4

- sol

- 5

10 0

900 . 600 YDP.

A . 16 -

ATLANTA, GA.

More Textile Firms Receive "E" Honors

POUR PLANTS of the Gossett Mills chain in South Carolina, Barnhardt Mfg. Co. at Charlotte, N. C., and American Silk Mills, Inc., at Orange, Va., have recently been named to receive the Army-Navy "E" for outstanding production of war materials.

The Gossett branches to be honored are the Ladlassie, Riverside and Toxaway plants at Anderson, and the Pen-

dleton plant at Pendleton.

April 28 has been designated as the date for presentation of the "E" pennant to Barnhardt Mfg. Co. The ceremony will be held at the Charlotte Armory-Auditorium.

One of the most recent Army-Navy "E" pennants to be raised over a Southern textile plant was that at Tallassee (Ala.) Mills April 7.

Governor Chauncey Sparks, who presided, said the people of Tallassee Mills have set an example and provided an inspiration for all Alabamians and all Americans. Winning of the award was described by U. S. Representative Joe Starnes as "demonstrating that free man can outproduce slave labor just as free men can overcome the enemy in the field."

Starnes said "this combination of producers and fighters" will win the war, and added that he thought 1943 will be "the hardest year on the home front" toward eventual vic-

tory.

The "E" pennant was presented by Lieut.-Col. Frank F. Taylor, Jr., officer in charge of procurement at the Jeffersonville (Ind.) Quartermaster Depot and was accepted by J. E. Harris, vice-president of Mt. Vernon-Woodberry Mills, Inc., of which Tallassee Mills is an affiliate.

Lieut.-Comdr. Edwin Phillips, commanding officer of the Naval Training School at Auburn, presented "E" pins for more than 4,000 employees. Mrs. Modia Smart, representing the employees, accepted them with a brief response.



During the program March 16 at Biddeford, Me., Captain Victor D. Herbster, U. S. N., presents "E" lapel pins to Saco-Lowell employees Sadie Weatherly, Heliodore Laverdiere, William Emery and George Russell.



Displaying the "E" pennant upon its presentation to the Trion (Ga.) Co. recently were, left to right: Dr. C. R. Wilcox, president of Darlington School for Boys, Rome, Ga., who acted as master of ceremonies; Lieutenant A. S. Lewis, U. S. N. R.; John L. Riegel, chairman of the Trion Co. board; N. Barnard Murphy, president of Trion Co.; Lieut. Col. Harold M. Manderbach, Philadelphia Quartermaster Depot; and German H. H. Emory, treasurer of Trion Co.



Officials meet some of the Saco-Lowell employees.



Visitors at the Trion Co. "E" award ceremony inspect the firm's glove factory.





Blood Donor Week in Hopedale

"A Pint of Blood to Save a Soldier's Life" was the watchword at Hopedale Community House during Blood Donor Week recently. Fourteen hundred Draper employees and members of their families volunteered as Donors, more than the Mobile Unit of the Boston Metropolitan Chapter of the Red Cross could take care of in a 5-day clinic.

Draper Corporation is on an All-out War Work basis. We are still making Loom Repair Parts and Maintenance Supplies to keep Vital Looms running. Guns, and Equipment for Manufacturers of Machine Tools and Airplanes are our main products.

More than 16% of our male employees are in the Armed service, and a good part of them are on the fronts in Europe, Africa and the Islands of the Pacific.

Draper Corporation



66.



Officials and guests on the award platform at Woodruff.

Triple Ceremony Honors Reeves Mills

IN the first triple celebration of its kind in South Carolina, Mills Mill at Greenville, Mills Mill at Woodruff and the Fairforest Finishing Co. at Clevedale were awarded the Army-Navy "E" for excellence in production of war materials March 27.

The triple celebration was brought to a close in Greenville when the "E" award and lapel buttons were presented to Mills Mill and its employees here.

Lowell Thomas, radio commentator, served as master of ceremonies at programs at Woodruff at 10 a. m., Fairforest at 12:30 p. m. and Greenville at 4 p. m.

Governor Olin D. Johnston and John M. Reeves, president of the three mills, spoke at all three ceremonies. Colonel Gus L. Gloeckner of the Marine Corps Depot of Supplies in Philadelphia, gave the presentation address in Greenville. Lieut.-Col. H. M. Manderbach of the Army Depot in Philadelphia presented lapel pins to the employees.

Colonel M. C. Gregory, Marine Corps quartermaster in Philadelphia, made the presentation address at Woodruff and Fairforest. Mr. Reeves made the acceptance speeches at all three celebrations.

The Greenville ceremony was held before more than 3,000 persons gathered in the Mills Mill baseball park. The Parker High School band furnished music and color guards were provided by the Army and Navy.



Displaying the "E" pennant at Greenville.

After the invocation was offered by Rev. P. H. Kelley, pastor of Emmanuel Baptist Church, Lowell Thomas introduced Governor Johnston who, in a short address, told his hearers "We must keep the wheels rolling . . . We're not going to have trouble as far as strikes are concerned in South Carolina. We mean to win this war . . . The state is proud of you."

Colonel Gloeckner told the employees that cloth they had made had been worn by Marine troops which stormed Guadalcanal and urged the workers to continue efforts toward greater war production.

"While the great machines roar, remember your sons and brothers out in those desert fox holes," he exhorted. When



Receiving "E" lapel pins at Fairforest.

you feel a little tired and begin thinking of your evening newspaper, that easy chair and the radio—think further!

"Thousands and thousands of your countrymen, most of them mere youngsters in years, are facing enemy bullets and bombs and torpedoes to preserve those comforts which all of us have come to accept too light. I am confident that

(Continued on Page 46)

300 Million yards a year



Now - three new "E's" in Reeves

For signal achievement in meeting our Government's wartime demands for cotton textiles, the 2500 men and women of Mills Mill No. 1, Mills Mill No. 2 and the Fairforest Finishing Company have been honored by three Army-Navy "E" awards. Not only will the three flags serve as a source of pride in past performance-they will be a constant incentive to even greater efforts along the road to Victory!

for our

Fighting Forces!

Eight years before Pearl Harbor, Reeves research and production began keeping pace with the fabric requirements of the U.S. Government. From initial orders of a few thousand yards of Army Twill, the production of many Reeves fabrics has been constantly increased to meet the needs of our rapidly expanding Army, Navy and Marine Corps. Since January 1940, mills under Reeves management have more than doubled their production - since January 1941, they have been in excess of 90 per cent of capacity on essential fabrics for our fighting forces.

New Fabrics from Reeves Laboratories

In addition to this increased production, Reeves laboratory experts are constantly cooperating with the Government in the development of new fabrics such as the six ounce Army Twill and Marine Corps suiting to help our fighting men master the elements and beat our enemies.

In spite of wartime pressure, Reeves supervision from Cotton to Cutter" insists upon careful inspection and constant laboratory testing of all fabrics to insure their meeting rigid U.S. Government specifications. After Victory, the expert ability of Reeves war workers plus the careful overall supervision of Reeves management will weave the benefits of wartime experience into peacetime fabrics.





54 WORTH STREET . NEW YORK, N.Y.

Representatives in ATLANTA · BOSTON · CHICAGO · DALLAS · LOS ANGELES · PHILADELPHIA · ST. LOUIS · MONTREAL · TORONTO



MILL NEWS

Anderson, S. C.—Anderson's newest textile plant, the yarn mill division of Piedmont Bagging Co., is now operating day and night, 100 per cent on Government orders, The yarn being manufactured by this new mill, it is stated, is especially suited for military purposes.

TALLAPOOSA, GA.—A new yarn mill will open in Tallapoosa at an early date, employing some 200 workers, it has been announced by officials.

A large thread company has purchased a building formerly used by Tallapoosa Cotton Mill, and machinery has been installed for operations expected to begin in two months.

WALHALLA, S. C.—The Kenneth Mill has been presented the "T" award by the Treasury Department for the record of its employees in War Bond purchases, 91.52 per cent putting 10.96 per cent of their earnings in bonds.

W. K. Stringer, president, and J. Roy Clark, manager, were high in their praise of the plant's workers for the record they have compiled.

LANCASTER, S. C.—An audience of thousands of employees of the Lancaster plant of the Springs chain of mills, with citizens of Lancaster and many guests from nearby towns, witnessed the presentation recently of two "Minute Man" flags and certificates of award to them by the United States Treasury in recognition of 90 per cent of the employees of the mill buying war bonds on a systematic purchasing plan.

SPARTANBURG, S. C.—The new 100-foot red brick smoke-stack recently erected at the plant of S. Slater & Sons, Inc., near here, was initiated into service recently. Bearing the word "Slater" and the date "1790" in huge white letters, it commemorates the founding of the first cotton mill in America by Samuel S. Slater in the year 1790. The new smoke-stack replaces an old metal one that is to be razed and turned in to the Government for scrap.

KANNAPOLIS, N. C.—Charles A. Cannon was re-elected president of the Cannon Mills Co. at the annual meeting of the board of directors here April 13.

Other officers, who were also re-elected, include John J. Barnhardt, A. Luther Brown, Arthur W. Fisher, Alexander R. Howard, Hearne Swink and Frederic A. Williams, vice-presidents; E. Gray Bost, treasurer; Hearne Swink, secretary; Edward Sauvain and George A. Batte, Jr., assistant treasurers, and E. Gray Bost, Joseph J. Boyle and William C. Cannon, assistant secretaries.

DANVILLE, VA.—The Riverside and Dan River Cotton Mills will begin a seven-day work week for the first time in its history by operating Sundays.

The decision was reached, a company spokesman stated, after the Government had asked for increased production on war orders.

すけんしんしてかんかとかかん

The entire mill will not operate each Sunday, it was emphasized by the spokesman. No definite schedule will be drawn up for weeks in advance, as the work will depend upon material on hand and the urgency of certain orders.

Continuous Development is the Price of Leadership

We still refuse to believe that the last word has been said in perfected loom strapping . . .

TEXTORIC, our newest development, comes via the plastic and chemical industries. It permits a dependable supply, uses no critical materials, and is a scientifically controlled product of absolute uniformity and great strength.

W. D. DODENHOFF COMPANY

GREENVILLE, SOUTH CAROLINA



Our expert technicians will prepare samples or test orders to your own requirements. No limits on width, length, thickness or punching.

SCORES OF TEXTILE MILLS

Use These Brands of Ours

"CASCADE" for LOOMS

"SPIN TWIST" for Spinners and Twisters

LESS SLIP Not Affected by Machinery Oil

MORE PICKS PER MINUTE!

LOWER COST PER BOLT OR SKEIN!

AKRON BELTING CO.

AKRON, OHIO

Leather Belting Makers Since 1885 Suppliers to the Textile Industry for 55 years.



Southern Representatives

RALPH GOSSETT & WM. J. MOORE 15 Augusta Street Greenville, S. C.

The AKRON BELTING COMPANY 406 South Second Street Memphis, Tennessee

for the TEXTILE INDUSTRY

Bahnson HUMIDUCT

The Bahnson Humiduct combined with the Westinghouse Precipitron gives positive lateral circulation of electrically cleaned air with controlled humidity.

The Bahnson Humiduct principle can supply conditioned air in any form—hot, cold, humid, dry, cleaned—or in any combination—automatically controlled.

Bahnson Engineers, experienced in textiles, are available for servicing post war planning—or priority installations.





¿ PERSONAL NEWS 5

H. L. Thompson is now overseer of weaving at Greenwood (S. C.) Cotton Mills.

Claude B. Williams is now superintendent of Mansfield Mills, Lumberton, N. C., replacing R. V. Revels.

K. O. Every of Pendleton, S. C., is now overseer of carding and spinning at Leward Cotton Mills, Worthville, N. C.

Victor M. Montgomery, treasurer of Whitney (S. C.) Mills, Inc., has been elected a trustee of the Spartanburg (S. C.) General Hospital.

G. G. Allen, superintendent of Cannon Mills Co. Plant No. 1, Kannapolis, N. C., has been re-elected chairman of his county board of education.

J. F. Snipes, formerly assistant superintendent at Mathews Cotton Mill, is now general superintendent at Grendel Mills No. 1, Greenwood, S. C.

L. M. Saxon, formerly general superintendent of National Textile Mills, Monrovia, Cal., is now assistant superintendent at Ingram Spinning Mills, Nashville, Tenn.

Lieutenant Claude E. Clark, Jr., son of the former general overseer of spinning at Riverside and Dan River Cotton Mills, Danville, Va., has been awarded the Distinguished Service Cross by General Douglas MacArthur. Lieutenant Clark, a graduate of the textile school of North Carolina State College, was injured in the Buna area last fall and was sent to Australia to recuperate.

F. S. Nicholas, who resigned his position as manager of Abbeville (S. C.) Mills several months ago and volunteered for service in the Navy, is now stationed at Norfolk, Va.

Robert H. Harris, formerly foreman of the printing department at Chatham Mfg. Co., Elkin, N. C., recently received his commission as an Army lieutenant at Camp Lee, Va.

Carl V. Odom, formerly of Darlington (S. C.) Mfg. Co., has been commissioned an infantry lieutenant in the U. S. Army and transferred from Fort Benning, Ga., to a post in Louisiana.

Donald Comer, chairman of the board of Avondale Mills, Sylacauga, Ala., has been appointed a member for management of an International Labor Office committee to study the probable position of the textile industry after the war.

Among those recently named to membership on the National Industrial Information Committee of the National Association of Manufacturers were J. L. Coker, president of Sonoco Products Co., Hartsville, S. C., and H. W. Prentis, president of Armstrong Cork Co., Lancaster, Pa.

W. S. "Bill" Johnstone has joined the sales force of A. B. Carter, Inc., Gastonia, N. C., and will represent the firm for Boyce Weaver's Knotters and travelers of all kinds. He formerly represented National Ring Traveler Co. in North Carolina. His new territory will include the state of South Carolina and Augusta, Ga.

COLUMBIA CHEMICALS

FOR FULL INFORMATION, PROMPTLY—
Wire, PHONE or Write
Southeastern District Sales Manager
J. R. SIMPSON

615 Johnston Building, Charlotte, N. C. Phone 3-0450

SERVING THE SOUTHERN TEXTILE INDUSTRY with

CAUSTIC SODA SODA ASH LIQUID CHLORINE . . CAUSTIC ASH MODIFIED SODAS . . . CALCIUM CHLORIDE

PITTS BURGH PLATE GLASS COMPANY

COLUMBIA CHEMICAL DIVISION

GRANT BUILDING PITTSBURGH, PA.
Chicago • Boston • St. Louis • Pittsburgh • New York

Houghton Wool Tops

PROMPT SHIPMENT ALL GRADES ON SHORT NOTICE

SUITABLE FOR BLENDS WITH RAYON OR COTTON

Write or Phone Our Sou. Representative JAMES E. TAYLOR Telephone 3-3692 CHARLOTTE, N. C.

中的人人名其此人然外外外不是人人人人

houghton

WOOL COMPANY
253 SUMMER STREET * BOSTON

PACKAGE DYFING AND BLEACHING

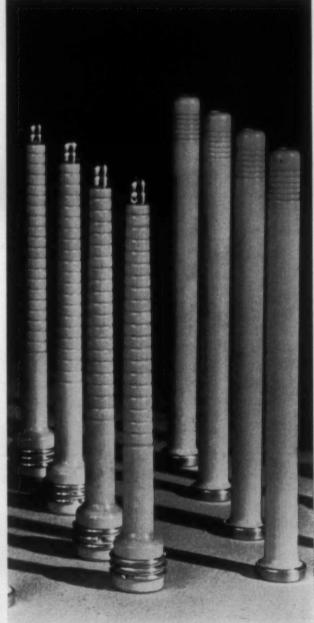
All Type Colors on Cotton Yarns

PIEDMONT PROCESSING CO., Belmont, N. C.

"You Can Count on WAK Counters" They are Rugged, Accurate, Dependable Write—Phone—Wire

WAK INDUSTRIES CHARLOTTE, N. C.





PRECISION BOBBINS

Outstanding for accuracy and uniformity. From top to bottom, inside and out, Precision Bobbins are highest quality in design and skilled craftsmanship.

NEW ENGLAND BOBBIN & SHUTTLE CO.

George M. Hambleton, Gen. Mgr. NASHUA, NEW HAMPSHIRE



Member of Audit Bureau of Circulations and Associated Business Papers, Inc.

Published Semi-Monthly By

CLARK PUBLISHING COMPANY

Offices: 218 W. Morehead St., Charlotte, N. C. Eastern Address: P. O. Box 133, Providence, R. I.

David Clark -						Pr	esident and Editor
Junius M. Smith			Vice	-Presi	ident	and	Business Manager
F. R. Carey -	-		•				Vice-President
James T. McAden							Associate Editor
Ellis Royal (On leave	in	U. S.	Army)	-			Associate Editor

SUBSCRIPTION

One year payal	le	in adv	ance	-				\$1.50
Other countries						 œ	-	3.00
Single copies		-						.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

New Labor Plan

On page 40 of this issue will be found the plan of the Charlotte Area Textile Manpower Pool as drawn by a committee of textile manufacturers after several conferences with representatives of the War Manpower Commission. The agreement has not yet received the official approval of the War Manpower Commission at Washington, D. C., but it is expected.

The growing labor shortage in the Charlotte area, plus the knowledge that the production of many mills is essential to the war effort, made advisable some agreement which would prevent labor piracy and prevent employees from leaving for textile mills in other sections or for work in industries other than textiles.

Under ordinary conditions we are against Government participation in labor relations but the growing shortage of textile mill employees had brought the Charlotte area to the point that the War Manpower Commission could declare it to be a vital area and take entire control over the employment of all persons in textile mills.

Under such circumstances, it was the part of wisdom for the textile mills to draw their own agreement subject to the stamp of approval of the War Manpower Commission, and that was exactly what was done.

Ratification by the War Manpower Commission will relieve the textile mills of any danger of prosecution under the Sherman anti-trust and other acts.

When, and if, the agreement is ratified no employee will be able to leave a textile mill in the

Charlotte area except under certain specified conditions.

Should an employee leave and accept employment in a textile mill in another section, or in another kind of manufacturing, the USES will be obligated to see that such employment is discontinued and the employee will have to return to his or her former position or be unemployed.

Such procedure may not sound right to those who have been accustomed to handle the employment of their workers or to employees who have been accustomed to move to another plant whenever it suited them, but we are at war and a large production of war material is necessary if our soldiers are to be given the support to which they are entitled.

While the agreement drawn by the textile manufacturers in the Charlotte area is the first of its kind, we believe that within a few weeks it will be followed by many others.

Our Post-War Fleet

A recent newspaper dispatch read:

Washington, D. C.—The United States merchant fleet, for the first time in history, may exceed Great Britain's before the end of the year.

It's smaller now, but officials here believe the vast American shipbuilding program will reverse the situation some time in 1943.

This would be fine if we did not know that practically all of the merchant ships now being built are being equipped with reciprocating engines instead of diesels.

They can be used to carry goods in slow speed convoys but will be entirely too slow for merchant trade after the war and we shall see thousands of them tied up at docks and rusting just as hundreds of them were for years after World War I.

We heard an engineer in a recent address charge that representatives of Great Britain had manipulated and controlled the situation so that reciprocating engines instead of diesels would be installed.

Great Britain aspires to have an active merchant marine after the war and the speaker said that they had insured that American merchant vessels would be too slow to compare with their diesel driven fleet.

Plans for a Greater Textile School

Plans for the enlargement of the scope of the Textile School at North Carolina State College, Raleigh, N. C., will be considered at a meeting to be held in the office of W. J. Carter at Greensboro, N. C., on Saturday, April 17th.

It will be in the nature of a joint meeting of the executive committee of the North Carolina Textile Foundation, Inc., which is composed of W. J. Carter, Greensboro, J. E. Millis, High Point, A. G. Myers, Gastonia, O. Max Gardner, Shelby and Washington,

D. C., W. H. Ruffin, Durham, and David Clark, Charlotte, with a textile committee appointed by Governor J. Melville Broughton from members of the Board of Trustees of the University of North Carolina, which includes N. C. State College. The trustee committee includes A. M. Dixon, Gastonia, K. S. Tanner, Spindale, Reid A. Maynard, Burlington, O. Max Gardner and David Clark. The last two named are on both committees.

Frank P. Graham, president, and W. D. Carmichael, comptroller of the University of North Carolina, will meet with the committees. Colonel J. W. Harrelson, dean of administration at N. C. State, is on military duty at Atlanta, Ga., and will not be able to attend

Governor Broughton is deeply interested in the plans for the development of the Textile School and hopes to attend the meeting.

The financial status of the North Carolina Textile Foundation, Inc., is now as follows:

Collected and placed in bank....\$334,600 (Of this \$250,000 has been invested in War Bonds)
Pledges not yet paid.............62,000

Total\$396,600

It is reasonably certain that the total collections will exceed \$500,000. They may reach \$600,000.

The meeting at Greensboro, N. C., on April 17th is for the purpose of making plans for the future of the Textile School and to consider the qualifications of persons who have been mentioned for the position of dean.

Dean Thomas Nelson, who has ably handled the Textile School for many years, has reached the legal age for retirement but will remain with the school as dean emeritus and professor of textile designing.

It is therefore necessary to select his successor as dean and also to consider men for the new positions which are to be created to teach business and marketing, personnel management, practical research and other subjects.

While the North Carolina Textile Foundation, Inc., is interested in research, both practical and scientific, it is primarily interested in the education of young men for the operation of our textile mills and the first consideration will be to provide a teaching staff of outstanding men.

To eliminate some confusion which has been created by the recent erection of the Textile Institute building on the highway at Belmont, N. C., we wish to state that it has no connection whatever with the North Carolina Textile Foundation, Inc., and is not included in its program.

The Textile Institute was erected with money provided by the 1941 Legislature of North Carolina and

Manpower In Washington



U. S. Government funds. The 1943 Legislature, which recently adjourned, provided \$75,000 for the purchase of textile machinery.

The Textile Institute is a worthwhile project for the training of textile mill operatives and possibly foremen but is not to be a textile school such as at N. C. State College, Clemson and Georgia Tech. It will be operated by the Vocational Education Department of the U. S. Government.

We are pleased to learn that South Carolina textile manufacturers have completed plans for the formation of a textile foundation and that a similar project is under consideration in Georgia.

Young Will Rogers

The late Will Rogers had the respect and esteem of the people of the United States and was always regarded as "for America first."

His son, Will Rogers, Jr., has been in Congress only a few months but has already established a reputation as an ardent defender of the communists.

Whenever Martin Dies or any one else offers criticisms of the communists, young Will Rogers rushes to their defense. People are wondering how the son of the greatly admired humorist and patriot got that way.



On Goes the Brave Fight to Make Men Live

They carry first aid kits instead of guns . . .

They work with stretchers and surgical bandages instead of mortars and grenades . . .

The men of the Army Medical Corps and the courageous Army nurses look to the Textile Industry for vital supplies in their fight to make men live.

With one medical man to every twelve infantrymen in this great new Army of ours, there are countless first aid kits to be filled with battle dressings of cotton flannel and gauze.

At field hospitals within range of the enemy's guns, there are stretchers, tent fabrics, bedding and supplies needed in tremendous quantities.

These are some of the great contributions of the Textile Industry in this war.

Butterworth Machines play their part in the battle of production at every step in the wet end of Textile Finishing—bleaching, boiling-out, drying, calendering, dyeing.

All our facilities not required for Ordnance production are available to help you solve your finishing problem. Let us serve you now.

H. W. BUTTERWORTH & SONS CO. Phila., Pa. Serving the Textile Industry since 1820 Offices in Providence, R. I. and Charlotte, N.C. In Canada: W. J. Westaway Co., Hamilton, Ont.

64%

of equipment now in use in the wet end of textile finishing cannot operate at a profit in competition with modern machines.

Proved by Research



Butterworth

PRODUCING GUN MOUNTS FOR THE UNITED STATES ARMY

DYEING AND FINISHING

Turning Minus Products Into Plus Ones

By GEORGE BROUN

PART TWO

IN the initial article of this series, the names of Camille and Henry Dreyfus were mentioned as the ingenious Swiss-English chemists who foresaw the possibilities of making synthetic fibers out of acetate cellulose dope solution and through their initiative this product was brought into large scale production at Cumberland, Md., the home of the Celanese Corp. of America.

The Dreyfus brothers were the successful developers of the Celanese acetate rayon process, but the discovery of acetate cellulose must be credited to Schutzersburger and Mandin in the early 1860's. This discovery was laid aside by these scientists but further development work was carried out by Cross and Bevan during the early part of the 1890's.

Cross and Bevan discovered chemical methods to precipitate or form cellulose acetate through chemical action, but it was around 1900-1903 before acetate cellulose was actually spun as a fiber in Boston by Little and Walker.

Out of this development work in Boston, an acetate-cellulose fiber spinning plant was started and this was known as the Lustron Co., which was later taken over by the Dreyfus brothers when they organized the Celanese Corp.

Widely Varied Uses

So, from the initial use, as a dope to use on airship wings in World War I, cellulose acetate is now used in countless forms such as plastics for automotive forms replacing metals and wooden parts, non-inflammable photographic and X-ray films and yarns of all descriptions. In this country there are now several makers of cellulose acetate. These are Celanese, DuPont, Tubize-Chatillon, American Viscose, and Tennessee Eastman.

The development and manufacture of acetate cellulose fibers was carried out after the regenerated cellulosic synthetic fiber processes (viscose cuprammonium and nitrocellulose) had been developed and were in a state of production.

Though it was slower in development and the organization of manufacturing facilities, the acetate cellulose rayon industry has now replaced two of the older processes in industrial importance and now ranks next to the viscose rayon process in the amount of yarn manufactured. In actual industrial importance on other applications, the acetate process could be ranked equal to the viscose.

According to the best authorities, Dr. Robert Hooke was

the first scientist to suggest the idea of making an artificial or synthetic fiber. This suggestion of Dr. Hooke's was in an article of his published in 1664, in the *Micrographia*, of which there is a copy now in the Rylands Library, Manchester, England.

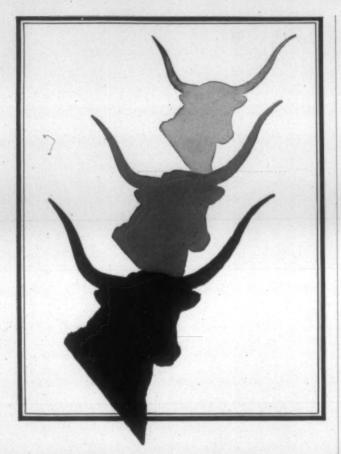
At a later date it was also accredited to Dr. Hooke of prophesying that to the inventor of a synthetic fiber, great profit would accrue to him. Though Dr. Hooke did not perfect a process, he started eminent scientists to delving into the study of the silk worm and how to utilize the natural principles of manufacturing as the silk worm does in the making of silk.

Reoumur's Prophecy

At a later date, an eminent French scientist, Reoumur, recorded his thoughts on the possibilities of making a synthetic fiber which he termed "artificial silk." This reference to the making of artificial silk was made in Reoumur's History of Insects, published about 1710. Quoting from a translation: "Silk is only a liquid gum which has been dried; could we not make silk ourselves with gums and resins? This idea which would appear at first sight fancied is more promising when examined more closely. It has already been proved that it is possible to make varnishes that possess the essential qualities of silk. China and similar varnishes are unaffected by solvents, water has no effect on them, the greatest degree of heat to which our fabrics are exposed could not change them. If we had threads of varnish we could make them into fabrics which by their brilliancy and strength would imitate those of silk and which would equal them in value, for good varnishes when properly dried have no smell. But how can we draw out these varnishes into thread? We cannot, perhaps, hope to draw out these threads as fine as those obtained from silk, but this degree of fineness is unnecessary, and it does not seem impossible either to spin them as fine as natural silk, when we consider to what extent art may be carried."

These recorded thoughts of Reoumur as to the possibilities that lay ahead of scientists, if they could find some way of preparing chemical solutions of resinous agents that could be spun into very fine fibers, was certainly thought provoking.

Over 100 years passed by before another scientist, Audemays, actually produced an artificial fiber in 1854. He dissolved nitrocellulose (nitrated cellulose or gum cotton) in



STEADY increase in sales volume

... matching consistent improvement in quality ... has been the record of PENN-TAN Leather. Today
it is the largest selling trade-marked
Check Strap Hairless Leather on the
market.

On the basis of this fact, we suggest that you specify PENN-TAN Leather on your next order for Check Straps. Let a test on your own looms prove to you why PENN-TAN Leather has achieved such an outstanding position of leadership.

If your regular supplier cannot furnish PENN-TAN Leather, write to us.

Shingle & Gibb Leather Co.

a mixed solution of ether and alcohol and the fibers were produced by dipping fine steel points into this collodion solution. An interesting legend as to Audemays' discovery was that he prepared his cellulose nitrate from a mulberry tree, hoping to secure the good properties of silk because the silk worm uses mulberry leaves in feeding itself.

Step by step, scientists gradually worked out means and methods for the preparation of chemical solutions and means and methods of producing artificial fibers.

Several scientists have been given credit for suggesting spinnerets for the spinning of artificial fibers but the real discoverer of a method to spin an artificial fiber was Swan, and he is credited with being the actual discoverer of artificial silk fibers.

Nitrocellulose Process

In 1884, Swan made possible the spinning of artificial fibers by forcing a collodion solution of nitrocellulose through very small openings into a chemical bath where the collodion coagulated and formed a fiber. Swan also removed the danger of explosibility from the nitrocellulose fiber by treating it after its formation with ammonium sulfide.

So, on the basis of these great creative steps in the manufacture of artificial fibers Swan is recognized as the scientist who laid the real foundation for methods and means to manufacture artificial fibers.

To Count Hilaire de Chardonnet goes the honor of being able to capitalize on the discoveries of other scientists and put these scientific developments into an actual manufacturing scale. He obtained a patent in 1884 and by 1889-91 this nitrocellulose artificial fiber was being produced in a Belgian plant.

While nitrocellulose rayon was the first artificial fiber to be produced on large plant size scale, it was found to be an expensive process as compared to the viscose and acetate rayon. It is now being made only on a small scale, chiefly by foreign plants for underwear yarns.

Several years ago, the Hopewell, Va., plant of Tubize-Chatillon (nitrocellulose) was sold to a South American rayon producer and was shipped as an entire working unit and installed there.

Cuprammonium Process

Another artificial fiber of interest was the (bemberg) cuprammonium process which was developed through discoveries of Despaissis, Bronnert, Fremery and others, but proved to be a very expensive process, as the chemical cost of production is higher than other processes. There is greater percentage of chemical and yarn waste occurring during this process and for these reasons this process has proven of limited success.

Cuprammonium yarns are of very fine filament, as they are spun under tension and they actually resemble pure silk more when woven or knit into goods than practically any other of the rayons previously mentioned.

The chief use for this rayon is for fine quality underwear and hosiery. Many military uses have been found for this fine filament rayon. There is one plant of major importance now making cuprammonium rayon in this country, belonging to American Bemberg Corp., Elizabethton, Tenn.

(To be continued)

Hickory Picker Stick Ceiling Set By OPA

The Office of Price Administration took two-fold action March 31 to relieve a critical shortage of hickory picker sticks essential to the weaving industry by establishing dollar and cents maximum prices for the picker stick blanks, which come from North and South Carolina, and by authorizing manufacturers to charge the same price for mixed color and all-red picker sticks which they have been charging for all-white blanks.

The price increase amounts to two to two and one-half cents per picker stick blank, or 25 per cent of the previous ceiling. New maximum prices apply equally to mixed-color and all-red blanks, which formerly sold at about 50 per cent of the price for all-white blanks.

The stress to which picker sticks are subjected in propelling the loom shuttles require that they be made from live, tough straight-grained hickory, free from all timber defects.

Maximum prices on direct mill shipments of blanks produced in South and North Carolina f.o.b. mill follow:

Dry Size	Maximum Price
1x2x36 in	10 cents per blank
11/8x21/8x40 in	121/2 cents per blank
All other sizes	\$2.00 per 1,000 board
	feet (figured on dry
	size basis)

These prices are contained in Order No. 16 under Section 1 (C) of the General Maximum Price Regulation, effective immediately.

Provisions will be made for a corresponding adjustment in ceiling prices of picker sticks. In no event, however, said OPA, will the raise affect textile prices.

Owing to the closing down of many manufacturing plants in North and South Carolina where 50 per cent of all U. S. hickory picker stick blanks are produced, a severe shortage has developed. Tests made by the U. S. Forest Products Laboratory prove that color has no effect on the strength of service of hickory products.

To channel the entire production of dogwood into the manufacture of shuttles and other textile machinery parts, the War Production Board has issued Limitation Order L-285.

Because of the scarcity of dogwood and the small amount produced, it has become necessary to restrict the use of this material to the textile industry and exclude other end uses where substitute species of wood would produce equally good results.

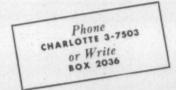
The only exemptions from the order apply to waste resulting from the manufacture of the textile devices; orders for less than ten cubic feet; dogwood actually in transit on April 13, 1943; sales under Priorities Regulation 13, and sales specifically authorized by WPB on Form PD-423.

Harry Curtis With Johns-Manville

Harry B. Curtis has been appointed sales representative in North and South Carolina for the power and industries division of Johns-Manville, Inc. Mr. Curtis, formerly secretary of Carolina Specialty Co., Charlotte, N. C., has been identified with the textile industry for a number of years and is well-known throughout the South.



To Our New and Old Customers

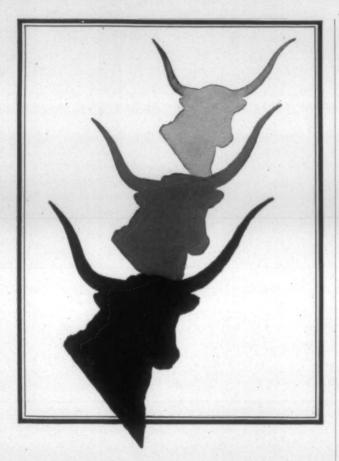


For reeds and heddles from Emmons' Charlotte plant

You'll find extra value in Emmons Reeds — extra yarn space, extra smoothness, extra accuracy — resulting in freer warp movement, more protection for the yarn.

Emmons manufactures reeds right in Charlotte. Flat heddles, heddle bar stock, rods and frame repair parts are stocked in Charlotte—with Emmons representatives, practical mill men, to help you get the most out of your loom harness equipment.





STEADY increase in sales volume
... matching consistent improvement in quality ... has been the record of PENN-TAN Leather. Today
it is the largest selling trade-marked
Check Strap Hairless Leather on the
market.

On the basis of this fact, we suggest that you specify PENN-TAN Leather on your next order for Check Straps. Let a test on your own looms prove to you why PENN-TAN Leather has achieved such an outstanding position of leadership.

If your regular supplier cannot furnish PENN-TAN Leather, write to us.

Shingle & Gibb Leather Co.

a mixed solution of ether and alcohol and the fibers were produced by dipping fine steel points into this collodion solution. An interesting legend as to Audemays' discovery was that he prepared his cellulose nitrate from a mulberry tree, hoping to secure the good properties of silk because the silk worm uses mulberry leaves in feeding itself.

M

co

in

ce

ce

ce

ef

Step by step, scientists gradually worked out means and methods for the preparation of chemical solutions and means and methods of producing artificial fibers.

Several scientists have been given credit for suggesting spinnerets for the spinning of artificial fibers but the real discoverer of a method to spin an artificial fiber was Swan, and he is credited with being the actual discoverer of artificial silk fibers.

Nitrocellulose Process

In 1884, Swan made possible the spinning of artificial fibers by forcing a collodion solution of nitrocellulose through very small openings into a chemical bath where the collodion coagulated and formed a fiber. Swan also removed the danger of explosibility from the nitrocellulose fiber by treating it after its formation with ammonium sulfide.

So, on the basis of these great creative steps in the manufacture of artificial fibers Swan is recognized as the scientist who laid the real foundation for methods and means to manufacture artificial fibers,

To Count Hilaire de Chardonnet goes the honor of being able to capitalize on the discoveries of other scientists and put these scientific developments into an actual manufacturing scale. He obtained a patent in 1884 and by 1889-91 this nitrocellulose artificial fiber was being produced in a Belgian plant.

While nitrocellulose rayon was the first artificial fiber to be produced on large plant size scale, it was found to be an expensive process as compared to the viscose and acetate rayon. It is now being made only on a small scale, chiefly by foreign plants for underwear yarns.

Several years ago, the Hopewell, Va., plant of Tubize-Chatillon (nitrocellulose) was sold to a South American rayon producer and was shipped as an entire working unit and installed there.

Cuprammonium Process

Another artificial fiber of interest was the (bemberg) cuprammonium process which was developed through discoveries of Despaissis, Bronnert, Fremery and others, but proved to be a very expensive process, as the chemical cost of production is higher than other processes. There is greater percentage of chemical and yarn waste occurring during this process and for these reasons this process has proven of limited success.

Cuprammonium yarns are of very fine filament, as they are spun under tension and they actually resemble pure silk more when woven or knit into goods than practically any other of the rayons previously mentioned.

The chief use for this rayon is for fine quality underwear and hosiery. Many military uses have been found for this fine filament rayon. There is one plant of major importance now making cuprammonium rayon in this country, belonging to American Bemberg Corp., Elizabethton, Tenn.

(To be continued)

Hickory Picker Stick Ceiling Set By OPA

The Office of Price Administration took two-fold action March 31 to relieve a critical shortage of hickory picker sticks essential to the weaving industry by establishing dollar and cents maximum prices for the picker stick blanks, which come from North and South Carolina, and by authorizing manufacturers to charge the same price for mixed color and all-red picker sticks which they have been charging for all-white blanks.

The price increase amounts to two to two and one-half cents per picker stick blank, or 25 per cent of the previous ceiling. New maximum prices apply equally to mixed-color and all-red blanks, which formerly sold at about 50' per cent of the price for all-white blanks.

The stress to which picker sticks are subjected in propelling the loom shuttles require that they be made from live, tough straight-grained hickory, free from all timber defects.

Maximum prices on direct mill shipments of blanks produced in South and North Carolina f.o.b. mill follow:

Dry Size	Maximum Price
1x2x36 in	10 cents per blank
11/n×21/n×40 in	
All other sizes	
	feet (figured on dry
	size basis)

These prices are contained in Order No. 16 under Section 1 (C) of the General Maximum Price Regulation, effective immediately.

Provisions will be made for a corresponding adjustment in ceiling prices of picker sticks. In no event, however, said OPA, will the raise affect textile prices.

Owing to the closing down of many manufacturing plants in North and South Carolina where 50 per cent of all U. S. hickory picker stick blanks are produced, a severe shortage has developed. Tests made by the U. S. Forest Products Laboratory prove that color has no effect on the strength of service of hickory products.

To channel the entire production of dogwood into the manufacture of shuttles and other textile machinery parts, the War Production Board has issued Limitation Order L-285.

Because of the scarcity of dogwood and the small amount produced, it has become necessary to restrict the use of this material to the textile industry and exclude other end uses where substitute species of wood would produce equally good results.

The only exemptions from the order apply to waste resulting from the manufacture of the textile devices; orders for less than ten cubic feet; dogwood actually in transit on April 13, 1943; sales under Priorities Regulation 13, and sales specifically authorized by WPB on Form PD-423.

Harry Curtis With Johns-Manville

Harry B. Curtis has been appointed sales representative in North and South Carolina for the power and industries division of Johns-Manville, Inc. Mr. Curtis, formerly secretary of Carolina Specialty Co., Charlotte, N. C., has been identified with the textile industry for a number of years and is well-known throughout the South.



To Our New and Old Customers



For reeds and heddles from Emmons' Charlotte plant

You'll find extra value in Emmons Reeds — extra yarn space, extra smoothness, extra accuracy — resulting in freer warp movement, more protection for the yarn.

Emmons manufactures reeds right in Charlotte. Flat heddles, heddle bar stock, rods and frame repair parts are stocked in Charlotte—with Emmons representatives, practical mill men, to help you get the most out of your loom harness equipment.





with Laurel Rayon Oils

PROPER FINISHING is a rayon requisite in spite of the need for speed in wartime production. Laurel Rayon Oils actually save production time. Laboratory and mill tested, they offset rayon weaknesses by improving lubrication, effecting gain in resiliency with resultant longer wear and better fit.

Laurel Rayon Oils and Finishes are available for immediate delivery. Our Laboratory stands ready to cooperate with you on special purpose compounds. Send for trial order today.

Throw your scrap into the fight!

SOAPS OILS FINISHES

SOAP MANUFACTURING CO., INC.

WM. H. BERTOLET'S SONS
ESTABLISHED 1909
TIOGA, THOMPSON & ALMOND STS., PHILADELPHIA, PA.
WAREHOUSES: PATERSON, N. J., CHATTANOOGA, TENN., CHARLOTTE, N. C.

In recent messages we have featured our ENDLESS CARD BELTS. Now we wish

To Remind You

that we also manufacture

CONE BELTS FOR ROVING FRAMES
PICKER EVENER BELTS

UNIVERSAL AND FOSTER WINDER BELTS
SACO-LOWELL AIR AND CONTINUOUS
STRIPPER BELTS

CLOTH ROOM MACHINERY BELTS
AIR COMPRESSOR BELTS

CERTAIN BELTS FOR BARBER-COLMAN AUTOMATIC SPOOLERS

Globe Woven Belting Co.

1396-1398 Clinton St.

Buffalo, N. Y.

Southern Sales Representative
WILLIAM A. PRINCE, HENDERSONVILLE, N. C.

Military Fabrics Must Be Reported

Monthly production and sales reports by weavers of rayon gray goods apply to goods produced for military purposes as well as for civilian use, the Office of Price Administration pointed out April 7 following receipt of information that some military fabrics are not being reported.

Under the provisions of Revised Price Schedule No. 23 as amended—Rayon Gray Goods—each construction of rayon gray goods of which a manufacturer produces or sells 10,000 yards or more in any one month must be reported monthly to OPA on or before the tenth day of the following month.

These report requirements apply both to the specific constructions of rayon gray goods listed in Schedule 23 and to other fabrics keyed to these constructions. Some producers of rayon gray goods for war procurement agencies had mistakenly assumed that these fabrics are exempt from the monthly reporting requirements. Such is not the case, OPA said. The reports apply to all rayon gray goods, no matter to whom sold or the use to which they are put.

To avoid any possibility of misunderstanding, OPA also pointed out that the ceiling prices established by Schedule No. 23 apply to rayon fabrics whether made for civilian or for military use.

Mill Operative Sets Working Record

Frank Burdette, employee of Calhoun Mills at Calhoun Falls, S. C., set what is believed a textile working record in South Carolina and perhaps the whole nation when he remained on the production job for 124½ hours straight.

Burdette, who was 24 years old on April 12, went on his job recently one Monday at 7 a. m. and worked around the clock on three separate shifts until the following Saturday morning at 11:30 o'clock.

That's five and a half days on the production line without a night's sleep if you stop to consider it.

The tireless employee said he was on an oiling job during the first eight-hour shift daily; doffed filling on the second shift and doffed warp on the third shift. The extra Saturday morning task was put in doffing warp for a friend.

He took naps of 15 to 20 minutes between doffs and had time to go to his home for a quick breakfast each morning. He wife brought him his dinner and supper, and he usually had a midnight supper in the mill.

Link-Belt Issues Abridged General Catalog

Completion of a new 180-page, streamlined, condensed, illustrated General Catalog No. 850 of Standard Equipment, is announced by Link-Belt Co., Chicago.

Representative types and sizes of power transmission and materials handling equipment are included, and preference is given throughout to the more widely adaptable designs.

It is pointed out that by standardizing on a few types and sizes and selecting standard equipment, instead of a needles variety, the purchaser will benefit not only by obtaining better delivery, but also through a reduction in number of spare parts to be carried on hand as insurance against delays in production.

Book No. 850 is particularly designed for the man who orders the repair parts, or wishes to buy just the parts for a new installation. The book will be forwarded to anyone requesting it on business letterhead.

Woolen, Worsted Fabric Production Sets New Record

Production of woolen and worsted woven fabrics in 1942 reached a new all-time high of 525,000,000 linear yards, Frank L. Walton, director of the Textile, Clothing and Leather Division of the War Production Board, reported April 12 on the basis of preliminary tabulations.

The output represented a five per cent gain over the former record of 501,000,000 linear yards produced in 1941, and was almost 50 per cent greater than 1939 production.

All military requirements were met on schedule, Mr. Walton reported, with yardages required for military purposes representing approximately half of the total industry output.

Production of essential civilian fabrics was maintained at relatively high levels, compared with 1939, with the exception of fabrics made primarily for men's civilian apparel. A lowered output of these latter types of fabrics reflected primarily the large numbers of men going into the armed services and the resultant reduction in demand.

However, it was pointed out that substantial inventories together with new stocks were sufficient to meet all requirements. Current reports on the supply picture indicate that manufacturers and distributors continue to carry adequate stocks of men's clothing.

In the case of woolen and worsted fabrics for women's clothing and general use, the tabulations show that production last year attained 98 per cent of the output in 1939.

The recent action of WPB in doubling the wool quotas for essential civilian fabrics is expected to make an additional 75,000,000 pounds of wool (greasy basis) available for civilian needs. This is further assurance that there will be adequate supplies of clothing for civilians during the fall and winter of this year, it was pointed out.

"Both the worsted and woolen divisions of the industry contributed to the notable expansion of production in 1942," Walton declared. "Particularly worthy of mention is the co-operation of carpet and rug manufacturers in converting a considerable portion of their equipment to the manufacture of blankets and cotton duck to supply vital military needs."

Rayon Producers Committee Meets

Members of the Rayon Producers Advisory Committee of the Textile, Clothing and Leather Division, WPB, met with Government officials April 9 to hear reports from the representatives of the Office of Civilian Supply, the Army and the Manpower Commission. The committee considered possible ways to speed up the present conversion program for rayon high tenacity yarns for military purposes and the possibility of revising the present conversion program to meet this demand. Also discussed was the importance of increasing production of more utility rayon fabrics for civilian needs.

The question of how the rayon producers could best aid in such a program was presented to the committee by Government representatives and the suggestion made that a task committee of five be appointed to meet with the rayon weavers task committee to determine how to produce additional yarn for rayon products.

H. L. Dalton, chief of the Synthetic Textile Branch, WPB, presided at the meeting.



FACTORIES which assure an uninterrupted supply of card clothing. If one factory is temporarily disabled, another factory can "pinch hit" for it.

REPAIR SHOPS which facilitate convenient and prompt repairs and which again insure you against emergencies.

DISTRIBUTING POINTS which speed up deliveries of those items we have in stock and facilitate personal contacts when the mill has card clothing problems.

From whichever source they come Ashworth Products are dependable, for they're made by "pioneers in card clothing." Ashworth Service is equally dependable, also unique. Ask us about Ashworth Surveys.

ASHWORTH BROTHERS, INC. WOOLEN DIV. AMERICAN CARD CLOTHING CO.

Fall River *†‡ Worcester *‡ Pl Greenville †‡ Atlanta †‡ Dalla

Philadelphia *†‡ Charlotte †‡ Dallas †‡ (Textile Supply Co.)

*Factory †Repair Shop

Distributing Point



Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for all Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Gyrnet Wire • Sole Distributors for Platt's Metallic Wire • Lickerins and Top Flats Reclothed.

No Margin for Error!



In action Uncle Sam's "PT" boats clip the waves at 70 miles per hour. If their ignition systems fail — they're dead ducks!

To assure trouble-free timing, ignition systems are insulated with phenolic resins — the best non-conductor yet devised. And that's where pure caustic soda is mighty important — as a vital processing agent in the synthesis of phenol by sulfonation.

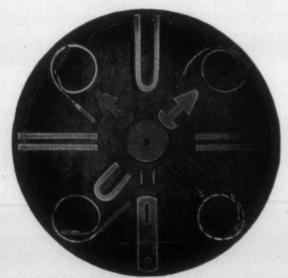
Mathieson Caustic Soda finds other important war uses in the manufacture of smokeless powder, rayon cargo 'chutes . . . in reclaiming rubber . . . and in refining lubricants and high octane gasoline for America's tanks and warplanes.

Mathieson

CAUSTIC SODA
The MATHIESON ALKALI WORKS (Inc.)
60 East 42nd Street, New York, N. Y.

Southern District Sales Office: Liberty Life Building, Charlotte, N. C.

RICE DOBBY CHAIN CO.



MILLBURY, MASS., U.S.A.

Southern Representative

JOHN P. BATSON + P. O. Box 1055 + Greenville, S. C.

Samples On Request

Operators of Charlotte Area Mills Adopt Labor Plan

The Charlotte (N. C.) Area Textile Manpower Pool, the first of its kind in the nation, in which mill operators voluntarily bind themselves, in co-operation with the United States Employment Service, to observe certain agreed rules designed to stamp out labor piracy, discourage absenteeism and otherwise stabilize textile manpower, was set up recently in a unanimous action by textile leaders.

The agreement is subject to approval by the War Manpower Commission, and when approved it will go into effect in the area, probably within a few days. The plan involves all personnel in all textile plants in Mecklenburg and Union Counties.

U

The plan was voluntarily agreed to in advance of forthcoming labor shortage restrictions. The textile executives believed they could formulate a local agreement more acceptable to local mills and employees, and serve the same ends, than some plan which might be imposed on them from Washington.

Under the terms of the agreement employers will not solicit or hire labor from other textile mills, essential industries or war-essential farms except by certificate of availability from the former employer or the USES. Employers and employees have recourse to an appeal board, yet to be named, when either feels that the rules have not been applied fairly.

Mason Swearingen, area director of the USES, presided at the meeting at the Chamber of Commerce. He presented the report prepared by the textile committee, which follows: George G. Cromer, Thomas W. Church, Jr., W. H. Telford, C. H. Carlough, George S. Fabel, David Lindsay, T. D. Dickson. The draft of the agreement follows:

"This operating plan is for the purpose of effectuating the policy of the War Manpower Commission to prevent piracy of workers and to promote full utilization of available manpower resources in the area of Charlotte.

"The following area, employees, employers and occupations are embraced within the scope of this plan:

"A. The area comprising Union and Mecklenburg Counties is, for purposes of this plan, the 'Charlotte Area.'

"B. All textile industries carried on within the area, including all carding, spinning, weaving and finishing of textiles.

"C. All occupations within such industries.

"I. It is agreed that the employer will assist in eliminating labor piracy and unnecessary labor turnover by refusing to solicit or hire any worker last engaged in war work or on farms since....., 1943, unless the employee has been made available by his former employer or by the local office of the United States Employment Service, after consultation with the worker's former employer,

"A. A certification of availability will be issued to a worker by the employer or by the United States Employment Service only where the facts and circumstances are in the best interest of the war effort. The following circumstances illustrate what might be considered good grounds for changes of employment:

"1. When the worker is competent to perform higher skilled work than his current employer is able or willing to provide.

"2. When the worker is employed for a substantial period at less than full time.

"3. When the worker is being paid less than the prevailing wage rate for comparable work in the community; and

"4. When the worker has other compelling personal rea-

sons for wishing to change.

"B. The granting or denial of a release may be appealed to the local manpower committee by the employer or the employee from a decision of the review unit of the United States Employment Service.

"C. The employer agrees that he will not hire persons enrolled in a Government-sponsored training course prior to completion of the course except upon referral by the

United States Employment Service.

"4. The employer agrees to make available for inspection his records of employment on the request of the local manpower representative or the United States Employment Service.

"II. Employers will not advertise, recruit or scout for workers outside the Charlotte area without the approval of the United States Employment Service.

"III. An aggressive program will be adopted in co-operation with the War Manpower Commission for training programs, reduction of absenteeism, full utilization of apprenticeship programs, upgrading and necessary job dilution.

"IV. Employers are to seek maximum utilization of local labor.

"V. The employer agrees to notify the local United States Employment Service of the temporary availability of any worker not being used at his maximum skill and con-

sents to the temporary release of such workers with the worker's consent for referral elsewhere, subject to recall on 24 hours notice through the United States Employment Service. Such workers will be considered as being loaned by the employer of origin.

"VI. It is agreed by the War Manpower Commission that if workers are pirated from the employers subscribing to this plan by employers located in other areas, the War Manpower Commission will act to procure compliance with the policies outlined in this plan.

"Nothing in this agreement shall in any way interfere with employees' rights for collective bargaining under the Wagner Act."

Cotton Men Elect Officers

Telescoping its sixth annual convention into one day, the Carolinas Cotton Warehousemen's Association met in Charlotte, N. C., March 31, discussed business, heard reports and elected officers.

L. Cottington of Dillon, S. C., former vice-president, was elevated to the presidency, succeeding C. J. Jones of Salisbury. J. O. Propst of Shelby was elected vice-president and H. Gordon Kenna of Columbia, S. C., was re-elected secretary-treasurer.

Directors from North Carolina were selected as follows: G. D. Arndt, Raleigh; A. D. Bass, Tarboro; C. J. Jones, Salisbury; B. E. Singleton, Washington; Grady Helms and H. W. Glasgow, Charlotte.



ATLAS BRAND



THE PRINCIPAL MILL SUPPLY HOUSES
AND CARD MAKERS



BOSTON, MASS.

GREENVILLE, S. C.
RALPH GOSSETT—WILLIAM J. MOORE
15 Augusta St., Telephone 150

INC. 1901

H. W. Curtis 735 W. Crescent Ave., Allendale, N. J. Allendale 3521

NEW YORK

OBITUARY

CLINTON M. POWELL

Clinton M. Powell, 56, widely-known in the Carolina textile area, died recently in a Lincolnton, N. C., hospital after an illness of six weeks.

Mr. Powell was formerly superintendent of Cannon Mills



C. M. Powel

at Kannapolis, N. C., sales engineer for Whitin Machine Works, general superintendent of Johnston mills at Charlotte, N. C., and sales engineer for H. & B. American Machine Co. At the time of his death he was manager of Balston Yarn Mills at Lincolnton.

Ch

me

Al

tio

ele

1.

he

0

R

tr

T

Surviving Mr. Powell, in addition to his wife, are their daughter, Mrs. Allen Otten, and a nephew, Eugene Bozeman, both of Charlotte; three sisters, Mrs. Fred Rudolph of

New York City Mrs. Dayton Smith and Miss Elizabeth Powell of Oakland, Calif.; and two brothers, Charles Powell of Yuba City, Calif., and Hugh Powell of Oakland, Calif.

Funeral services were held at the Lincolnton Presbyterian Church April 11.

LAURENCE K. LOFTIN

Laurence K. Loftin, 52, vice-president and treasurer of Lane Co., Altavista, Va., died April 5. Prior to his work with that company he was connected with his father, A. K. Loftin, in Loftin & Sons Cotton Mills, Altavista.

GEORGE H. BRIDGE

George H. Bridge, 70, vice-president and Southern representative of William R. Noone & Co., died recently at his home in Longwood, Fla.

Born in Boston, he moved to Providence, R. I., in 1896 to enter the textile industry with F. A. Chase Co. as salesman; and, later he organized Hope Mill Supply Co. Following this he came South as a representative of American Supply Co., and in 1930 became associated with William R. Noone & Co. He was elected a vice-president of the firm in 1935.

J. T. PREVETTE

J. T. Prevette, 58, a director and vice-president of Gordon Mills, Roaring River, N. C., died recently of a heart attack. He leaves his widow, three sons and two daughters.

HERBERT L. HAMBLETON

Herbert L. Hambleton, owner of the H. & P. Spool & Bobbin Co., Lawrence, Mass., died recently, aged 42. He was the son of the late Frederick Hambleton, who conducted the spool and bobbin plant for many years previous to his death in November, 1941. Mr. Hambleton leaves his widow, a son and two daughters.

EST. 1888

W. C. HAMES 185 Pinecrest Ave., Decatur, Ga. Dearborn 5974

ATLANTA, GA.

E. P. Coles Retires As Head of G. E. Charlotte Office

E. P. (Doc) Coles retired April 1 as manager of the Charlotte office of General Electric Co. under the retirement plan of that company.

'Doc' Coles, as he is generally known, was born in Albemarle County, Va., and secured his engineering education at Washington and Lee University, Lexington, Va.

After taking the G. E. student course at Schenectady, N. Y., he was assigned to South American installation and electric plant work and was there for six years.

His first job was to install lights in a bull fighting ring at Caracas, Venezuela. It was the first ring ever to be equiped for night fighting.

Later he was located at Manaos, Brazil, which is 1,500 miles up the Amazon River. Manaos is a city of 100,000 and the center of the rubber trade. He once took a trip 1,800 miles further up the Amazon River to Iquitos, Peru.



E. P. Coles



R. B. Horning

Returning to the United States in 1901 he located at the Philadelphia office of General Electric Co. until 1908 when he was made manager of the Charlotte office, a position which he has filled since then with credit to himself and General Electric Co.

As Doc Coles retires under the retirement plan of the General Electric Co. after 47 years of loyal service he carries with him the best wishes of the multitude of friends he has made. He will continue to reside in Charlotte.

He has been succeeded by Robert B. Horning. Mr. Horning is a graduate of Franklin Marshall Preparatory School and Pennsylvania State College.

He has been an employee of General Electric since 1913, at which time he entered "G. E. Test" with the exception of approximately 19 months, during World War I, during which time he was a senior lieutenant in the U. S. Naval

While with General Electric Mr. Horning has devoted his time primarily to sales and application engineering in textile mills throughout North and South Carolina.

Waterman Opens Charlotte Office

G. H. Waterman Co., Inc., Providence, R. I., cotton varn brokers, have established offices in the Johnston Building at Charlotte, N. C. The office will also become the company's Southern headquarters. E. H. Fritzgenger, from the home office, will be in charge.

The company has two other branches, one at Amsterdam, N. Y., and one at Philadelphia. The concern buys and sells cotton yarns and is working closely with the war effort in handling parachute harness, camouflage netting, binding twine, cotton fabrics, etc.

The Only Annual Register of the KNITTING INDUSTRY

New-Names, Firms, Addresses, Markets and Buying Sources

- 2,199 Knitting Mill reports in detail; officers, machinery, etc.
 645 Knitting Yarn Spinners' reports; equipment, sizes, etc.
 610 Knitting Yarn Dealers are also listed.

Including These Large Lists as Below

- 486 Knit Goods Manufacturers' Agents. 1,236 Knit Goods Wholesalers with buyers.
- Chain Store reports.
- 1,872 Department Stores with Knit Goods Buyers' Names.

The **Entire** Knitting Industry Complete



OFFICE EDITION \$6.50

POCKET EDITION \$5.50

Over three times an ordinary years' corrections! 'The only annual Knit Goods Register"

The New 52nd Year Davison's Knit Goods Trade

represents an investment of over seventeen thousand five hundred dollars by the publishers in thoroughly revising thousands of separate mill reports, classifying them by product, alphabeti-cally indexing them and also including about twelve thousand allied firms. Arranged and edited with rigid precision, its eight hundred pages will bear the test of any examination! It is yours for only \$6.50 in the deluxe office edition or \$5.50 for the handy size!

The Entire Industry Is Conscientiously Reported in Detail, Listed and Cross Indexed

Davison Publishing Co.

Executive, Production and Sales Offices at

RIDGEWOOD

NEW JERSEY

Index to Advertisers

	Page		Page
Almon Bolting Co	90	Laurel Soap Mfg. Co., Inc. Lincoln Hotel Luttrell & Co., C. E.	90
Akron Belting Co. American Viscose Co.	91	Lincoln Hotel	38
Arnold, Hoffman & Co.	4	Luttrell & Co. C. E	45
Arnold, Hoffman & Co. Ashworth Bros. Auffmordt, C. A.	39		
Aummordt, C. A.	62	-M-	
—B—		Mathieson Alkali Works Meadows Mfg. Co. Merrow Machine Co., The	- 40
Bahnson Co., The	29	Merrow Machine Co., The	62
Bahnson Co., The Baily & Co., Joshua L. Barber-Colman Co. Barnes Textile Associates	48		
Barnes Textile Associates	64	-N-	
		National Ring Traveler Co Neisler Mills	46
Borne, Scrymser Co.	53	New England Robbin & Shuttle Co	48
Brooklyn Perfex Corp.	4:	New England Bobbin & Shuttle Co Noone & Co., Wm. R.	49
Borne, Scrynser Co. Brooklyn Perfex Corp. Burkart-Schier Chemical Co. Butterworth & Sons Co., H. W.	34	Onyx Oil & Chemical Co.	
		Onyx Oil & Chemical Co.	29
Carolina Refractories Co.		_P_	
Carolina Refractories Co.	58	Parks-Cramer Co. Piedmont Processing Co.	47
Charlotte Chemical Laboratories	Inc. 60	Piedmont Processing Co.	31
Clinton Co.	31	Chemical Div	18.
Carter Traveler Co. Charlotte Chemical Laboratories, Clinton Co. Cole Mfg. Co., R. D. Curran & Barry	50	Pittsburgh Plate Class Co., Columb Chemical Div. Proctor & Schwartz	46
Curran & Barry	48	_	
—D—		Ragan Ring Co. Ray Chemical Co. Raymond Service, Inc., Chas. P. Reeves Bros. Rice Dobby Chain Co. Roy & Son Co., B. S.	
Dary Ring Traveler Co	58	Ragan King Co.	- 50
Davison Publishing Co.	43	Raymond Service, Inc., Chas. P.	45
Denison Mig. Co. Dixon Lubricating Saddle Co.	69	Reeves Bros.	27
Dodenhoff Co., W. D.	28	Rice Dobby Chain Co.	40
Draper Corporation	25	Roy & Son Co., B. S.	02
Dary Ring Traveler Co. Davison Publishing Co. Denison Mfg. Co. Dixon Lubricating Saddle Co. Dodenhoff Co., W. D. Draper Corporation Dronsfield Bros. Dunning & Baschert Press Co.	42	—S—	
Dunning & Boschert Press Co., DuPont de Nemours & Co., E. I. Dyestuff Division		Saco-Lowell Shops Shingle & Gibb Leather Co, Sinclair Refining Co, Sirrine & Co., J. E. Southern Belting Co.	. 8
Dyestuff Division	7	Shingle & Gibb Leather Co.	36
_		Sirring & Co. I E	10
Eaton, Paul B. Emmons Loom Harness Co. Engineering Sales Co.	140	Southern Belting Co.	23
Emmons Loom Harness Co	97	Southern Spindle & Flyer Co.	57
Engineering Sales Co.	64	Southern Spindle & Flyer Co.	- 56
		Sterling Ring Traveler Co	54
Foster Machine Co.		Southern Standard Mill Supply Co Sterling Ring Traveler Co. Stevens & Co., Inc., J. P.	48
-G-		Terrell Machine Co.	5.0
Garland Mfg. Co.	62	Terrell Machine Co. Textile Apron Co.	63
Garland Mfg. Co. Gastonia Roller, Flyer & Spindle of General Dyestuff Corp.	Co 64		
Globe Woven Belting Co	19	_U_	
Globe Woven Belting Co. Greenville Belting Co.	45	U S Bobbin & Shuttle Co.	- 9
		U S Bobbin & Shuttle Co. U. S. Ring Traveler Co. Universal Winding Co.	2
-H-			
Houghton & Co., E. F.	15	-V-	
Houghton & Co., E. F. Houghton Wool Co. Howard Bros. Mfg. Co.	31	Vogel Co., Joseph A.	56
Ideal Machine Co.		-w-	
ideal Machine Co.	13	WAK Industries Walker Mfg. Co. Warwick Chemical Co. Back C	- 31.
-J-		Warwick Chemical Co. Back C	over
Johnson Chemical Co.	61	Wellington, Sears Co. Whitehead Machinery Co., Troy	48
		Whitehead Machinery Co., Troy	
-K-		Whitingville Spinning Ring Co.	over
Keever Starch Co. Keystone Belting Co.	52	Whitinsville Spinning Ring Co. Windle Co., J. H.	45
Keystone Belting Co.	58	Woonsocket Color & Chemical Co	69

Brothers Have Surprise North African Meeting

Sergeant Thomas M. Washington and Corporal Willis Washington of near Ware Shoals, S. C., half-brothers of J. Manning Bolt, superintendent of Mathews Cotton Mill, Greenwood, S. C., recently had a very unexpected meeting in North Africa.

A Greenville, S. C., soldier told Thomas that he had seen Willis the previous night. When Thomas found his brother about 200 yards away he learned that Willis had arrived in North Africa only four days previously.

WANTED

Two experienced machinists for machine shop work in cotton mill on West Coast which is doing essential war work. Also can use one experienced roller coverer, spinners, spoolers, winders, weavers, card room help and others experienced in textile work.

Answer "Box C-26," Care Textile Bulletin.

PERFEX FIBRE BROOMS .-

are modern.

Tests, trials, eliminations, experiments, planned efforts have been put into making them.

Continued.co-operation with Batson will put the right fibre broom in every department.

BATSON Greenville, S. C. Box 841

OUR MEN NEED * BOOKS *



GOOD BOOKS ARE ON THE MARCH from your bookshelves to our fighting men. Get them outleave them at the nearest collec-tion center or public library for the 1943 VICTORY BOOK CAM-PAIGN.

WANTED—Position as Overseer of Spin-ning and Twisting. Twenty years' ex-perience on cotton and waste. Draft exempt. Address "Box 21," c/o Textile Bulletin.

SUPERINTENDENT OR CARDER, services available. Above draft age. Experienced on all classes cotton yarns and plain and fancy weave. References. Address Box No. 464, c/o Textile Bulletin.

WANTED—Position as First Class Roller Coverer, 22 years' experience. Married; sober. Can furnish good references. Draft exempt. Address "Box A-22," c/o Textile Bulletin.

WANTED—Position as Cloth Room Over-seer. 41 years old; 20 years' experience as overseer plain and fancy fabrics. Familiar with large job. Now employed. Good references. Address "Cloth Room," c/o Textile Bulletin.

TIME STUDY and Methods Engineer wishes to make change. 15 years on Bedaux and other Points Systems, with leading Southern mills, manufacturing sheets, tire cord, cotton and woolen suitings, blankets and chambrays. Would also consider position as assistant mill superintendent, Age 40; Class 3-A. Best of references furnished, Address "Box 163-P," c/o Textile Bulletin.

WANTED—Position as Second Hand or Night Overseer of Spinning, or Carding and Spinning in small mill. 10 years' experience in mill; I. C. S. graduate in Carding and Spinning. 28 years of age. Draft exempt. Other information upon request. Address "Box 366," c/o Textile Bulletin.

ENERGETIC Worker with proper back-ground desires position as Secretary, Office Manager, Personnel Manager or Purchasing Agent with Textile Mill. Associated with Textile Industry for years both in mill and selling end. Per-fect health; beyond draft age. Address "Box M-G." c/o Textile Bulletin.

WANTED—Place as Superintendent of Weaving Mill, 12 years' experience as superintendent. Plain or fancy cotton or rayon weaving. Not subject to draft. Good references. Address "Box 864-W," c/o Textile Bulletin.

WANTED—Position as Master Mechanic textile plant. Ability to handle steam or electric and general maintenance. Many years' experience. Sober, efficient. Above draft age. Best of references, Address "M. M.," c/o Textile Bulletin.

Address "M. M.," c/o Textile Bulletin.

WANTED—Position as Overseer of Weaving. Employed at present as overseer, but desire change. Have fancy weaving diploma. Attended Clemson College one term. Have fifteen years' practical experience in weave rooms making plain and fancy cotton weaves; also plain and fancy filaments and spun rayons. One and a half years' experience as cloth room overseer. Age 36; married; three children. Good health and soher. Address "Box X-3," c/o Textile Bulletin.

NOW IS

To look over your worn belts and have them repaired or replaced. We can do either or both. No charge for estimate. Call today.

BELTING **GREENVILLE** COMPANY

Manufacturers of Leather Belting Phone 2218 (Day) 3916 (Nite)

WANTED

Executive for small carded yarn mill. Must be experienced in all phases of yarn business and familiar with regulations on wages and hours, Social Security, priorities, etc. Good health, personal habits, highest integrity essential. Between 38 and 55. Position for duration and six months. Reply to "Executive," c/o Textile Bulletin, giving necessary information in own handwriting.

FOR SALE

- -Woonsocket 12 x 6 x 10 x 72 Sp. Slubbers. -Whitin 10 x 5 x 7½ x 84 Sp. Intermediates. -Wet Twisters, tape drive, 2¾" ga., 288 sp. -Foster No. 25 Doubler, 3 ends,
- 100 sp.
 1—Tolhurst 40" Extractor.
 40—40" Draper Model "E" Looms.
 120—44" Draper Model "E" Looms.
 1500—Vertical 4½" Twister Rings.

J. H. WINDLE & CO.
231 So. Main St. Providence, R. I.
Tel. Gaspee 6464

WANTED

WANTED—To purchase or lease building suitable to house 5,000-spindle cotton yarn mill. Preferably on side track. Would also consider purchasing good-going small cotton yarn spinning mill, in section with good experienced labor. Give full particulars in first letter.

Address "Box W-43," c/o Textile Bulletin.

WANTED

Place as Superintendent of Yarn Mill. Experienced on combed and carded cotton and waste. Not sub-ject to draft.

Address "Box D-443," Care Textile Bulletin.

WANTED

Mill Supervisor for Southern rayon weaving plant. One capable to take full charge of warping, slashing, twisting, quilling, fixing and weav-ing. State age (must be exempt from draft), previous experience and references.

Address "Supervisor, c/o Textile Bulletin,

Classified Department

Southern Standard Mill Supply Co.

NEW, REBUILT AND USED TEXTILE MACHINERY and SUPPLIES

512 W. Fourth Street Charlotte, N. C.

Phone 3-8841

1064-90 Main St., Pawtucket, R. I.

C. E. LUTTRELL & COMPANY

Textile Machinery and Supplies

GREENVILLE, SOUTH CAROLINA "Textile Center of the South"

Wanted



By mill operating Jacquard Looms on upholstery fabrics, active and energetic young man to organize and operate a third shift and serve in capacity

Adéquate compensation assured. In reply please state draft classification.

Write "Jacquard," care Textile Bulletin.

PAUL B. EATON Patent Attorney

1208 Johnston Bldg., Charlotte, N. C. 514 Munsey Bldg., Washington, D. C.

Former Member Examining Corps U.S. Patent Office

EMPLOYMENT SERVICE We invite correspondence with em-ployers seeking men and men seek-ing positions. Over 40 years in business, serving Southern and Northern mills.

Charles P. Raymond Service, Inc. 294 Washington Street Boston, Mass.

WANTED

Experienced Braid Mill Superin-tendent; also experienced Dyer for Skein Dyeing. Both men must be draft exempt.

Write "Braid Mill," c/o Textile Bulletin.

WANTED

Overseer of Spinning between ages of 35 and 55. High school education preferred. Only those with experience in running large rooms and capable of commanding top salary need apply.

Write "Box B-C."
o Textile Bulletin.

WANTED

Overseer of Weaving between ages of 35 and 55. High school education preferred. Only those with experience in running large rooms and capable of commanding top salary need apply.

Write "N-T."
c/o Textile Bulletin.

WANTED

Personnel manager for cotton mill of about twelve hundred employees. Capable of taking complete charge of the personnel work. Please give age, experience and salary desired.

Write "Manager," c/o Textile Bulletin.

WENTWORTH

Double Duty Travelers



Reg. U. S. P. O. Hicks, American, Wilson, U. S. Standard

Last Longer, Make Stronger Yarn, Run Clear, preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE.

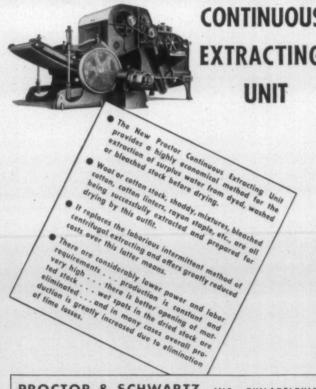
NATIONAL—ETARTNEP FINISH A New Chemical Treatment

Manufactured only by the

National Ring Traveler Co.

Pawtucket, R. I.
131 W. First Street, Charlotte, N. C.
L. EVERETT TAYLOR, So. Agent

PROCTOR



PROCTOR & SCHWARTZ . INC . PHILADELPHIA

Triple Ceremony Honors Reeves Mills

(Continued from Page 26)

you, like all of us in the Army and Navy, are just as eager as those boys to brew more bitter doses for freedom's foes.

Fie

vice

ide

tur

for

18

at

lin

pa

ma

He

Jr.

uf

ch

T

to

di

"Here, then, is your flag.

"Fly it proudly!"

Mr. Reeves, in accepting the flag, said, "It is with a deep sense of pride that I accept this Army and Navy "E" pennant on behalf of the men and women of Mills Mill No. 1.

"But we must not forget that with this great honor comes an even greater responsibility. As the Army and Navy 'E' is raised, let us pledge ourselves to renewed effort in our fight to defeat those who would destroy all that we cherish and hold dear in American life. Let us make our pledge now that this flag will continue to proudly fly with a service star added for each additional six months' record of continued high production."

In his address, Colonel Manderbach said, "This award is the highest honor your country can bestow on the production front . . . This 'E' pin should be considered your military decoration . . . This does not mean you can rest on your laurels . . . The Army and Navy fully appreciate your co-operation and your accomplishments."

In accepting the pins, M. E. Bishop, employee representative, said, "... This 'E' pin should be an inspiration to us that we may be on our jobs daily, work harder and produce better materials so that we can keep this 'E.' If we do this, a star will be added to our flag every six months."

Lowell Thomas introduced Major Jim Sherman of Somerville, Mass., and Major Mike Davidowitch of Brooklyn, N. Y., both veterans of the Marine campaign on Guadalcanal.

While the program was in progress, bombers from the Greenville Army Air Base flew over the baseball field.

The invocation at Woodruff was by the Rev. B. M. Winn, pastor of Mills Mill Baptist Church. The Camp Croft band played martial music there and at Fairforest. Hobar Hunter accepted the lapel pins after Colonel M. C. Gregory of the Marine Corps had made the presentation speech and Mr. Reeves had made the acceptance speech. C. F. Dobbins accepted the pins for employees at Fairforest.

Other employee representatives were: Greenville, Mrs. J. B. Abbott and Mrs. Sunie Putnam Porter; Woodruff, Mrs. Grace Lancaster and Pickens Green; and Fairforest, Mrs. Thelma Roberts and R. P. Medlock.

Reeves Bros., Inc., is furnishing vital cotton fabrics to the Government at the rate of 300 million yards a year. Among those produced is the famous Reeves Army twill for uniforms—over 60 million yards of this fabric have already been delivered. Mills Mill at Woodruff, S. C., is one of the Government's chief sources of supply for Type I wind-resistant twill, known as Byrd Cloth, used in Army field jackets, Navy summer flight clothing and Navy sleeping bags. Fabrics for Navy blimps, life rafts and life vests, Marine herringbone twill for work uniforms, poplins for ski troops, camouflage cloth, water-repellent, flame-proof fabrics for tents, supply and gun covers are among the other vital materials which Reeves research and production skill are delivering in increasing quantities to keep pace with the requirements of our Army, Navy and Marine Corps.

Luther Hodges Now a Vice-President Of Marshall Field & Co.

Luther H. Hodges, general manager of the Marshall Field & Co. manufacturing division, has been elected a vice-president of the company, Hughston M. McBain, president, announced following the firms' annual meeting. Mr.



Hodges, who has been identified with the division since 1919 when he went to work for the company as a private secretary, is in direct charge of the ten textile mills at Draper, Leaksville and Spray, N. C., and Fieldale, Va., and the Zion Lace Curtain Mill at Zion, Ill. He became general manager of the division in 1938. The mills, which employ about 7,000 persons, are now manufac-

turing camouflage materials, mosquito netting, blankets, sheetings, towels, cartridge cloth, parachute cloth, powder bags, duck shelter tents and osnaburg cloth for sand bags for the armed forces.

Mr. Hodges was born in Pittsylvania County, Va., in 1898 and was reared in North Carolina. He was graduated at the top of his class from the University of North Carolina in 1919 and went directly into the employ of the company. In 1923 he was made educational director, became production manager of three plants in 1933 and joint manager of all plants in 1935. He was appointed production manager in 1936 and general manager in charge of sales and production in 1938 when he moved to New York City. He is married, has three children, Nancy, Betsy and Luther, Ir., and lives at Bronxville, N. Y.

Fish Netting Output To Be Increased

The entire facilities of all fish netting manufacturers were ordered April 3 to be devoted exclusively to the manufacture of camouflage nets and fish netting for domestic (commercial) fishing and Lend-Lease purposes by the War Production Board.

The order (L-282) will have the effect of curtailing entirely the manufacture of sport nets—such as tennis, volley ball, badminton and table tennis nets—made on the machines affected by the action. However, suitable substitutes are being developed which can be made on other types of machines.

The order also assigns an A-2 rating for seine twine and other yarn to be incorporated into commercial fish netting. This yarn will not otherwise be procurable.

Fish netting is a heavy meshed fabric made of cotton and is used for catching deep sea, lake and river fish. This netting has also been extensively used for camouflage purposes in the various theaters of war with the result that steps had to be taken to assure fulfillment of the demand.

After April 5, 1943, all manufacturers who produced during the calendar year 1942 more than 12 tons of fish netting will be prohibited from producing or processing in any stage of manufacturing any netting, except that required to fill specific military orders for camouflage netting or fish netting as defined in the order.

Likewise, manufacturers are prohibited from selling or delivering any netting which they know or have reason to believe will be used for any purpose other than camouflage or the catching of fish for commercial purposes.



Adjustable outlets make Parks Traveling Cleaners

- MORE FLEXIBLE
- MORE EFFICIENT

Volume of air may be regulated, where the air is aimed may be adjusted. Both air streams may be "spotted" in — or directly down — or slightly out; each side independently of the other.

Parks-Cramer Company

Fitchburg, Mass.

Charlotte, N. C.

SELLING AGENTS FOR SOUTHERN COTTON GOODS

CURRAN & BARRY

320 BROADWAY NEW YORK, N. Y.

WELLINGTON SEARS CO.

65 WORTH STREET

NEW YORK

Representing 18 mills-merchandising 25,000 fabrics

Industrial Fabrics—Garment Fabrics Towels and Toweling—Drapery and Upholstery Fine Cottons—Rayon

BRANCHES

Boston Philadelphia Atlanta Chicago St. Louis New Orleans San Francisco Los Angeles

Domestic

Export

Merchandising

Joshua L. Baily & Company
40 WORTH STREET NEW YORK

NEISLER MILLS CO., Inc.

Selling Agents

66-68 WORTH STREET, NEW YORK

J. P. STEVENS & CO., Inc.

fabrics for diversified uses

1410 BROADWAY

44 LEONARD STREET

EMPIRE STATE BUILDING

NEW YORK

Cotton Goods Market

NEW YORK.—The calmness which has prevailed throughout the market for some time has continued to go undisturbed except in a few instances. Sellers and mill centers still are directing their main efforts to the job of supplying the Government.

imp

of o

new

high

sale

герг

evic

unn

rela

requ

nee

"fre

affe

the

reli

con

duc

star

wil

рга

dec

ant

the

unc

ceil

by

for

is E

def

ply

tini

ule

But

era

ing

Th

duc

1

(

Interest has been high in forthcoming awards on a number of Government invitations which were opened recently. The idea was gained in a number of places that several of the large invitations would show a deficiency in the total yardage wanted by the Philadelphia Army Quartermaster. Generally the feeling was held that the Government eventually would get all its needs even though the initial bids might be short of expectations.

Opinions have begun to crystallize on the President's "hold-the-line" order, with the view often expressed that if some sort of stabilization could be arrived at all along the line in respect to prices of cotton, gray goods and finishing, as well as wages, there would not be so much hesitation about future business. In the same breath hopes were held that a definite program would be set up as to just how much the Government would need for military purposes, and how much could be let out on essential priority ratings or for civilian needs.

The market did a lot of speculating on the implications of the order and its effect on the textile industry. The sharp decline in the stock market and drop in cotton prices were viewed as definite indications that the administration is bent upon throwing its full weight against encroaching inflationary tendencies.

A good deal of debate was indulged in as to just how the cotton mills and textile merchandising industries would be affected, but apparently no complete understanding of the order has been formulated, other than the broad view that hopes for higher ceilings on cloths were much dimmer for the time being.

Plans to establish a raw cotton ceiling, as indicated by Prentiss M. Brown, head of OPA, were regarded as promising further investigation into the prices of cotton goods, with the possibility that additional changes may be made to tie these in with the staple. The stabilizing of wages is expected by some to have a beneficial effect on the cotton textile industry, with employees being discouraged from leaving their jobs for so-called more attractive jobs.

Many sellers apparently prefer to mark time and await developments. The earliest possible deliveries that mills might want to make would be for the third quarter, many feel. With many Government contracts still to be placed and heavy orders unfilled it will likely take a few more weeks before any definite action takes place; at the earliest the first week in May, it is thought. Also there is the question of catching up on deliveries on which mills are behind because of having had to take on priority rated orders and the set-backs in production that quite a few suffered because of having to slow down operations as a result of labor shortages. It would not be surprising if a number of mills were compelled to pass up acceptance of July business and jump from June to August.

Cotton Yarns Market

PHILADELPHIA.—The last two weeks has been a most important period for yarn distributors and spinners because of outside events which have affected the industry, although new business handled continues to remain on a small scale.

One important move was the requests filed with OPA for higher ceiling rates, were needed, for combed and carded sale yarns. It is generally understood here that spinners' representatives already have supplied OPA with conclusive evidence, both accurate and comprehensive, setting forth unmistakably the present position of the sale yarn mills. As related in this market, this data was examined by market interests and is said to show that the combed yarn spinners require much higher ceiling rates than they have been accorded, and some of the carded yarn mills also urgently need relief.

Another thing, the President came out with his latest "freezing order" for commodity prices and wages. This affects the yarn industry in two ways, of course. However, there are "salvation clauses" in the President's order, which have been construed as indicating that applications for relief under the provisions contained in Federal laws will continue to be considered by OPA.

From the standpoint of "maintaining and increasing production," it is regarded here that the sale yarn industry stands in the category of essential war-effort production and will be treated accordingly.

Cotton sale yarn spinners and distributors continue to pray for early price-ceiling relief, but it is realized that the decline in cotton quotation, occasioned by the President's anti-inflation order already has furnished the industry with some relief. And should cotton decline considerably further, it is assumed that the yarn price ceilings may remain unchanged indefinitely.

That is, according to many persons in the industry, priceceiling adjustment recently had practically been promised by the OPA, following a period of several months' negotiations during which carded and combed yarn mills petioned for a rise in the ceiling prices. But the President's order, it is now stated, may be deemed by Washington authorities to have given this industry sufficient encouragement, through deflation of the cost of cotton.

t

Most yarn suppliers and mill representatives in this market point out, however, that the following conditions remain: sale yarn production is off, yarn mill manpower supply still is being lost, unit cost of production of yarn continues to rise, through the process of training help and losing help; available supplies of sale yarn remain far short of combined civilian and military requirements, and schedules of delivery have been rearranged ar far as possible. But spinners and distributors still have to pass up a considerable part of currently offered business.

Remembering their experiences with yarn shortages during the last few months, civilian consumers are reported to be tolerant of lapses from the customary quality standards. That is, the main aim is to get sufficient yarn to enable production to go forward. Deliveries, therefore, have become of more consequence than quality specifications on civilian orders, though for Government orders, quality has to be resolutely maintained.

WILLIAM R. NOONE & CO.

A. ERLAND GOYETTE, President ARNOLD T. MALONE, Treasurer

105 Washington St.

Boston, Massachusetts



Established 1831

NOONE'S Standard Slasher Cloths

Ask for NOONE'S SLASHER CLOTHS by name or style number.

Long experience in manufacturing Slasher Cloths and continuous experimenting have enabled us to produce several types of Slasher Cloth, each especially constructed to give best results on the particular kind of yarn to be sized.

The proper Slasher Cloth for each type of yarn means properly sized warps, less loom stops, easier weaving, more and better production, and lower cost. We can supply you the right cloth for your particular work. On request, we will have our representative call and discuss Slasher Cloths with you.

We are the oldest manufacturers of Slasher Cloth in America. Our experience enables us to build a Slasher Cloth that will meet your most particular demand. Use NOONE'S SLASHER CLOTHS and be convinced.

Sole Agents For

The Joseph Noone's Sons Co.

Peterborough

New Hampshire

Use

NOONE'S ROLLER CLOTHS NOONE'S SLASHER CLOTHS NOONE'S CLEARER CLOTHS

TANKS VATS BOILERS

Stainless Clad Steel Monel Metal

R. D. COLE MANUFACTURING CO. NEWNAN, GEORGIA

ESTABLISHED 1854



RAGAN SPINNING RINGS

These Four Features Mean Greater Spindle Efficiency

- Smoother finish, greater resistance to dry abrasive wear, due to improved patented process of case-hardening.
- Angled top for easier starting (eliminates the beginning drag of inside traveler point).
- Angled side-wall—eliminates outside point drag, or backtracking; prevents chatter; produces better face on yarn.
- · Reversible and non-reversible standard flange numbers.

Ask for the Whole Story and Samples

RAGAN RING COMPANY

Box 174, Station A

Atlanta, Georgia

Treating Army Lightweight Protective Covering Materials

(Continued from Page 22)

4. If shade looks correct, drop on eighth end.

5. Rinse through cold water on shelling.

For O. D. shades, do not use direct blue, yellow and a red, or blue, yellow and brown, as these two groups of colors tend to give off-shade selvedges due to the yellow and blue in formula.

It is best to make a direct O. D. with a direct orange, brown and blue, or preferably with a direct olive, orange and blue, as the dyed shades will be much more uniform from one lot of dyed goods to the next. The jig-dyed goods are dried, then have to be padded through the waterproofing agents instead of pigging, as this would take too long. Some direct formulae during direct yellows require aftertreatment with barium chloride to give cold water fastness. This may be applied by one or two bath method.

One Bath Aftertreatment

One hundred gallon mix (enter in order listed):

20 pounds corn starch (thin boiling); bring up temperature slowly, cook ten minutes in 40 gallons water; then add 40 pounds waterproofing compound; one gallon acetic acid (add water to approximately volume); 40 pounds barium chloride (dissolve in cold water before entering); stir in thoroughly and keep on acid side with acetic acid; pad at 120-140° F. (A dyer has to be very careful in selecting a waterproofing compound, as many types are not stable in the presence of barium chloride.)

Two Bath Aftertreatment

60 pounds barium chloride; pad at 120° F., dry on cans, then pad through waterproofing compound and starch; 20 pounds corn starch (thin boiling); 40 pounds waterproofing compounds; pad at 120-140° F., dry on cans and frame to desired width (this gives the desired finish); the finished goods must be checked for cold water fastness and shade

Padding of Comforter Cloth

Padding of comforter cloth is the method of dyeing the direct O. D. shades which is practical and inexpensive but the goods must be kiered or kiered-bleached to give satisfactory operating conditions. The same recommendation for selection of direct color formula holds for both jig and pad dyeing. If the direct color formula has been carefully selected and the goods are properly prepared, there are two simple padding and finishing procedures:

Pad No. 1 Mix—Prepare color with necessary amount of starch and pad at 180° F. at 75 to 200 yards per minute, according to speed of padder and whether the color formula will hold its shade and not show endiness.

The padded goods may be handled several ways before finishing. These are:

(1) Batch the padded goods in boxes if the color formula is free from box-marking; if not, run it on shells to be dried; then give waterproofing aftertreatment.

(2) Run the padded goods direct to dry cans, dry, then onto shells ready for waterproofing aftertreatment, dry and frame ready for shipment approval on shrinkage, fastness tests and shade.

Pad No. 2 Mix—Prepare color mix without penetrant and pad at 70 to 200 yards per minute at 180° F. Run the

padded goods onto shell or into box if formula does not box-mark. Dry on cans ready for aftertreatment with mix containing waterproofing compound and starch. (Use barium chloride only if necessary.) Finish up as described above.

Continuous Piece Dyeing

For continuous piece dyeing a direct O. D. on comforter cloth is the least expensive and if layout can be adjusted gives the most economical and highest production of any method.

These are some of the "Do's" and "Don'ts":

- (1) Use thoroughly kiered goods; bleached bottomed goods will run more uniformly. (Use starch and color in pad box.)
- (2) The dyestuff formula must be carefully selected and be free from dirtying the pad box and rolls.
- (3) The color formula can be run on the heavy side, then padded goods can be run directly through a second padder in rear of machine containing aftertreating bath. If the color formula bleeds off too much, then the aftertreating bath must be set to overflow so as to prevent too heavy discoloration of aftertreating liquor.

The dyed and aftertreated goods are then dried on cans and framed.

This is a procedure that requires careful adjustment of every detail or the dyer will have plenty of grief if not carefully worked out.

MOSQUITO BARS, INSECT, FIELD—P. Q. D. No. 263.

Light and heavy mosquito sheeting bars, 3.75 and 2.50. These goods have similar fastness requirements as on the comforter cloth, but the control of the shrinkage in the dyed and finished goods is one of the chief sources of trouble in most plants running these goods. There are several ways and methods of handling this shrinkage control. These are:

Method One: Give the gray goods only a desizing and hot washing operation, thereby eliminating all the pulling back and forth of the goods required during the loading and unloading of kiers, as well as during the bleaching operations. Then dye the goods on the jig and finish up as outlined

Jigging of goods is done thusly: (1) enter goods into jig bath through cold water, add penetrant and give two ends at 140° F.; (2) add color on first and second end. Raise to boil, run four ends; (3) add salt on fifth and sixth end. Sample on eighth end; if correct shade, wash up and rinse on ninth end ready for running onto shell.

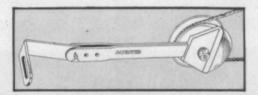
Dry on cans partially ready for aftertreatment with waterproofing compound and starch.

Pad on waterproofing mix at 120° F., then dry partially on dry cans and finish drying on frames by running at reduced speeds of 45 to 50 yards per minute.

This method of dyeing and finishing is suited to a smaller plant with available jigs but is not satisfactory for larger plants requiring large productions.

Method Two: Use kiered or kiered-bleached goods, dye by padding ithout starch, then fold wet into box or shell ready for special finishing bath.

Aftertreating and finishing mix: Starch, cook up in half volume of water, add cold water to raise volume to three-



CHECK THESE ADVANTAGES OF BALL-BEARING TENSION PULLEYS

- 1. Uniform Spindle Speed
- 2. Uniform twist at all times
- 3. No band-slippage, and no slack varn
- 4. No damp weather, dry weather or "Monday Morning" band trouble
- Lubrication every 5000 operating hours. No. doffing or frames necessary for installation.

... and you'll understand why they are helping 750,000 Spindles meet Government Specifications!

For complete information on how MEADOWS Ball-Bearing TENSION PULLEYS can help on your spinning and twister-frames, write—

MEADOWS MANUFACTURING CO.

ATLANTA, GEORGIA



EVERY LOOM FIXER NEEDS THIS BOOK

ERECTING, OVERHAULING and FIXING LOOMS—By Frank D. Herring—The popular series of articles, which appeared in Textile Bulletin for over a year, are now available in a single handy volume.

Cloth Bound-Profusely Illustrated-Price \$1.25

CLARK PUBLISHING COMPANY

P. O. Box 1225 Charlotte, N. C.

fourths; urea formaldehyde resin, add, mix thoroughly; plasticize, add, mix thoroughly; waterproofing agent, add, mix thoroughly.

Pad on at 140-150° F., according to stability of mix. Then dry at 50 to 70 yards per minute on cans and through covered frames where the temperature is high enough for curing the urea formaldehyde resin. (The 3.75 mosquito sheeting can naturally be finished more rapidly than the heavier 2.50 goods.)

Many plants have found this finishing method of practical value and some have changed the procedure by experimenting and applying the urea formaldehyde resin in the color pad box, but the padding temperature of 180° F. does not make this as satisfactory a method of application as applying after dyeing.

This method is one that requires careful checking by dyer, chemist and finisher, but has many practical advantages in its favor. A plant could not run it satisfactorily unless cans are covered and frames are at a high enough temperature to properly cure and age the urea formaldehyde resin which gives the finished goods the desired shrinkage control.

Method Three: Use kiered or kiered-bleached goods, dye by padding or continuous piece dyeing operation.

Dry and give aftertreatment by padding and drying on cans, then give sanforizing finish for shrinkage control.

This method gives the most uniform shrinkage control and the sanforizing does not change the final dyed shade or affect the cold water fastness if the dyer selects direct colors not changed by sanforizing; otherwise, a dyer must do this or suffer complaints on off-shade lots and poor water fastness

On these direct color formulae no penetrants are used, as they tend to break down the aftertreatment using waterproofing agent and from results observed in many of the country's leading finishing plants, they do not seem to be of any advantage except on jig dyeing and should not be used unless needed on continuous piece dyeing.

(To Be Continued)



Proposals for Simplifying Rayon Fabric Constructions Discussed

Preliminary proposals for simplification of rayon fabrics were discussed March 31 at the first meeting of the Rayon Weavers Industry Advisory Committee with representatives of the Textile, Clothing and Leather Division of the War Production Board. Harry L. Dalton, chief of the WPB Synthetic Textile Branch, presided.

Under a suggested plan submitted by Government officials, the approximately 1,500 individual types of rayon fabric constructions now manufactured would be drastically reduced to a small percentage of this quantity. This, it was felt, could be accomplished without change-overs or other alterations in machinery.

Based on studies made by the Office of Civilian Supply, the proposed constructions are intended to effect maximum production of good quality rayon fabrics with the limited amount of raw materials now available. Representatives of the industry pointed out that the currently large military demands for chemicals needed for rayon yarn production makes a simplification program advisable. It was also agreed that all fabrics produced under the proposed simplification program should be designed to give maximum utility—that is, to best suit the purposes intended and to wear well.

A simplification would likewise result in conservation of manpower, it was declared, particularly through curtailment of production of so-called highly styled novelty rayon fabrics.

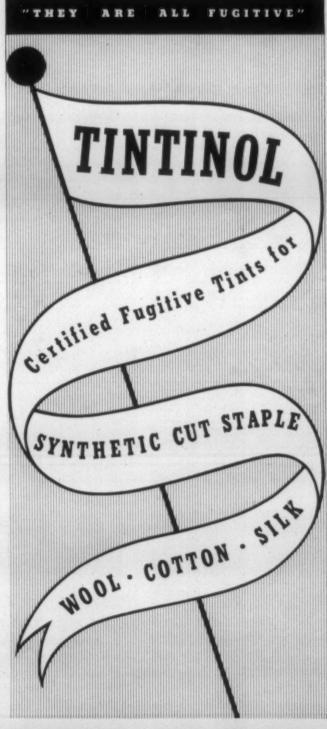
A further objective of the proposed program is to assure a more balanced supply picture in production of rayon fabrics through establishment of a production pattern which would be followed by every manufacturer. The needs of the weaving industry and the fabric trade would be taken into account in setting up such a pattern, it was pointed out.

Three task committees, covering plain looms, box looms and spun fabric, were set up at the meeting to study the problem further and to reportr back to the committee specific proposals for any order that might be issued. Before final action is taken, rayon yarn manufacturers will be consulted to make certain that the necessary yarns for fabrics which may be finally decided upon will be available.

It was emphasized that the proposals are still tentative and that any final action will depend on findings of the task committees.

Members of the committee are W. J. Carter, Carter Fabrics Corp., Greensboro, N. C. (J. A. Lybrand, alternate); M. C. Cowan, Jr., Burlington Mills Corp., Greensboro, N. C. (Malcolm Brady, alternate); R. G. Emery, Dunean Mills, Greenville, S. C.; Roger Gant, Glen Raven (N. C.) Silk Mill; Lyman B. Frieze, Duplan Corp., Hazleton, Pa.; Clinton C. Griffith, Newmarket Mfg. Co., Lowell, Mass.; H. W. Hilgert, Dundee Mills, Clifton, N. J.; A. F. Ix, Frank Ix & Sons, New Holland, Pa.; J. M. P. Ott, J. M. P. Ott Mfg. Co., Pawtucket, R. I.; A. J. Owler, Verney Mills, Inc., Brunswick, Me.; Alan B. Sibley, Laurens (S. C.) Cotton Mills; and Otis Stanton, Hathaway Mfg. Co., New Bedford, Mass.

BRIDGEPORT, CONN.—The Singer Mfg. Co., manufacturers of sewing machines prior to conversion to war production, received the Army-Navy "E" April 9 at plant ceremonies.



BORNE SCRYMSER COMPANY

ESTABLISHED 1874

SOUTHERN SALES MANAGER . H. L. SIEVER, CHARLOTTE, N. C.

Representatives

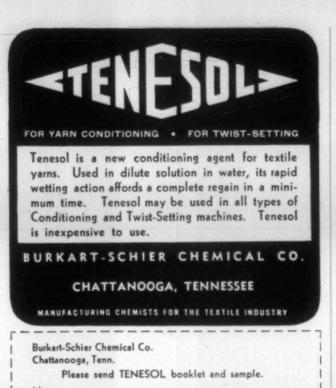
R. C. YOUNG, CHARLOTTE, N. C. • W. B. UHLER, SPARTANBURG, S. C.

JOHN FERGUSON, LA GRANGE, GA.

New England Representatives A. M. KNIGHT, WEST YARMOUTH, MASS. F. L. EKSTRAND, STAFFORD SPRINGS, CONN.

ELIZABETH . N.

CHARLOTTE





American Viscose Makes Apointments In Several Departments

Karl M. Currier has been appointed manager of the American Viscose Corp. War Procurement Department, and William M. Harvey has been appointed assistant manager, it was announced recently. Mr. Currier previously was assistant manager of the company's sales development department at Marcus Hook, Pa., and Mr. Harvey has been a member of the staff of the War Procurement Department.

The primary function of the War Procurement Department is to insure full utilization of the company's auxiliary facilities and equipment for the prosecution of the war effort. This is accomplished by manufacturing military material with equipment that is not in use 100 per cent of the time on production of rayon. The department was organized shortly after our entry into the war, when it became apparent that all available machine shop facilities and other installations would be needed for the manufacture of arms and other equipment required by our rapidly expanding military forces.

Joseph A. Truitt, head of the woolen and industrial divisions of the American Viscose Corp. Sales Development Department, has been transferred to the company's War Procurement Department. Frederick C. Wedler of the War Procurement Department has received a commission as first lieutenant in the U. S. Army and has reported for duty at the Ordnance Department, U. S. Army, Philadelphia, Pa. Mr. Wedler for several years was head of the dyeing and finishing division of the sales development department, but was transferred last year to the War Procurement Department, where he was responsible for the successful completion of some of the original work undertaken by that department.

Robert A. Smith, head of the Worsted Division of the American Viscose Sales Development Department, has been appointed head of the Woolen Division in addition to his present duties. He will take over the work done by Joseph A. Truitt. Mr. Smith will be assisted by Robert D. Pickens, a member of the faculty of the Philadelphia Textile School, who has been loaned to the American Viscose Corp. for an indefinite period to enable it to carry on needed research work in the textile field.

Howard E. Shearer, who was Mr. Truitt's assistant in the Industrial Division, has been appointed head of the Industrial Division. Mr. Shearer is a trained research engineer and patent lawyer who was for many years in research work at the National Bureau of Standards, Washington, D. C.

Jackson A. Woodruff has joined the Sales Development Department of American Viscose as a member of the Dyeing and Finishing Division. He will assist James A. Hopwood, manager of the division, in carrying on research work on dyestuffs and on dyeing procedures.

National Resources Planning Board's Recommendations Are Analyzed

(Continued from Page 12)

respond at least in numbers to the ten Bill of Rights adopted by the founders of our Government. The additional right suggested is the super-right of the officials of the administrative Government, all of whom are under oath to preserve, protect and defend the Constitution, to defy God,

Company_

Address

City

repudiate the sanctity of the oath, and betray the trust imposed in them by the Constitution, at will, when any political emergency demands it.

Declarations and promises made by those who make bold to ignore the trusts committed to them under oath when political emergencies arise are nothing more than scraps of filthy paper.

A great historian nearly 100 years ago foresaw what no American had conceived; that is, that the Constitution would be made all sail and no anchor by the administrative

In a letter to an American, written in 1857, Macauly, the great English historian, predicted the downfall of our republic in this century. The letter, in part, is as follows:

'I have long been convinced that institutions purely democratic (majority rule) must, sooner or later, destroy liberty or civilization or both. . . . It is quite plain that your Government will never be able to restrain a distressed, discontented majority. . . . The day will come when a multitude of people will choose a legislature (Congress). On one side is a statesman preaching patience, respect for vested rights. On the other is a demagogue ranting about the tyranny of capitalists. I seriously apprehend that you will in some such season of adversity do things which will prevent prosperity from returning; that you will act like people who should in a year of scarcity devour all the seed-corn, and thus make the next year a year, not of scarcity but of absolute famine. There is nothing to stop you. Your Constitution is (will be made) all sail and no anchor. Either some Caesar or Napoleon will seize the reins of Government with a strong hand, or your republic will be laid waste by barbarians in the twentieth century as the Roman Empire was in the fifth."

Advancement Through Struggle

Man doesn't like to struggle. With few exceptions man likes ease and comfort and freedom from want and the fear of want. However, he must be driven and enticed into the struggle, and held in the struggle as the essential condition of finding his life. The conditions of life that give the greatest incentives to constructive struggle are the best conditions of life and offer the best opportunities for advancement in life. The conditions of life that relieve man from the necessity of struggle constitute his most deadly enemy. Want and the fear of want are nature's greatest dynamic forces in the interest of human progress. Want and the fear of want have been the greatest incentives in building the foundations of moral and spiritual character which results from paying the price of self-denial, sacrifice and hard work in the present for something better in the future.

Hardly any greater calamity could come to human progress than a condition under which the Government protects every individual against want and the fear of want. There is hardly anything else so destructive to human character and social progress as dependency.

Everything that needs to be done to protect the health of the people and to care for those who are incapable of taking care of themselves can be done efficiently by the Government without violating any principle of the constitution. The highest type of social security and the greatest general welfare possible to self-respecting sovereign citizens that are possible under any form of government may be obtained in this country without violating any principle of the Constitution.



MILLIONS of SPINDLES

WORKING FOR WAR

Eleven million men in uniform means a lot of traveler hours in the textile industry. It also means long continuous periods of high sustained speed. It means that travelers have got to work harder and do better—because there is no time for failures, errors, delays.

For seven years Carter has been building for something like this. Our customers expect more of Carter Travelers because they know that we know what they must have.



We have developed a practical solution to temporarily replace our standard metal cans with a hermetically sealed, double strength, especially treated paper board box.

THE A. B. C. LINE - RING TRAVELERS

CARTER TRAVELER COMPANY

A. B. CARTER, INC

SALES REPRESENTATIVES

R. D. HUGHES SALES CO., 2106 S. LAMAR STREET, DALLAS, TEXAS

Eastern (Including Canada) C. E. HERRICK, 44 FRANKLIN STREET,
PROVIDENCE, RHODE ISLAND

European: MELLOR, BROMLEY & CO., LTD., LEICESTER, ENGLAND Mexico: LEO LENK, APARTADO NO. 533, MEXICO CITY, D. F.

For All Plants LARGE OR SMALL



VOGEL NUMBER 4—Vitreous china bowl with top supply, painted white enameled drum type pressure tank, reinforced hardwood seat, union ell flush connection, lead waste connection, supply and flush valves assembled with 3 ft. 2 in. genuine wrought iron valve rod and casing.

This fixture can be furnished with Vacoum Breaker and Ball Check Waste. Regardless of the size of your plant, Toilet Rooms which require constant repair and time out for adjustment, will rob you of valuable man-hours and may constitute a menace to the health of your employees.

Vogel Products are proving their ability to withstand the use and abuse of today's 24-hour working schedule. In textile mills, shipyards, chemical and high explosive plants, steel mills and many other places throughout, the Nation, Vogel Products are meeting all the requirements of our all-out War Effort.

JOSEPH A. VOGEL

WILMINGTON, DELAWARE

Our Service Backed by Years of Experience

-enables us to give you the Best in the

MANUFACTURE OF

STEEL ROLLS FLYER PRESSERS CARD ROOM SPINDLES LIFTING RODS

REPAIR OF

STEEL ROLLS ROVING SPINDLES SPINNING SPINDLES FLYERS

OVERHAULING OF

FLY FRAMES SPINNING FRAMES TWISTERS SPOOLERS

MOVING OF

ALL KINDS OF TEXTILE MACHINERY

SOUTHERN SPINDLE & FLYER CO., Inc.

We Manufacture, Overhaul and Repair Cotton Mill Machinery"

CHARLOTTE, N. C.

W. H. MONTY, Pres. and Treas.

Viscose Declares \$1.25 Dividend

Directors of American Viscose Corp., at their regular meeting on April 7, declared dividends of \$1.25 per share on the five per cent cumulative preferred stock, and 50 cents per share on the common stock, payable on May 1, 1943, to shareholders as of the close of business April 19, 1943.

Safety Through Advanced Job Analysis

(Continued from Page 18)

Some hazard or safety prevention idea may be uncovered by the asking.

Key men in the organization should be the ones to make these individual studies of the jobs. It might be wise for the superintendent, his assistant, or whoever heads up the safety program to make one or two studies at the start. Then overseers, second hands, safety committee chairmen can be used. The more who partake, the more the interest. Of course, all these need not be doing this at the same time. Do one and later on do another. The main thing is to get started with the fundamentals. In large plants with full time job analysis—safety personnel, job analysis is used in safety work largely to show up hazards and ways to overcome them. In our smaller plants and mills it is also a stimulus and part of the regular safety program. Therefore, supervisors are logical ones to share in the work.

Data Very Important

The heart of the whole analysis is the bringing together of all the data concerning any particular job. This is the third key point. Along with the steps in the primary analysis would be listed the hazards involved in each step, respectively. Then, with all the hazards listed, they may be studied and proper preventives worked out.

Important to remember is that the proper safeguard of some hazard can be either of two types. One type is that of determining some safe way of doing that part of the job. The other type is the rearranging or changing of the actual

way the job is done.

An illustration of the first is the operation of starting cotton into the beater feed roll of a picker. It was pointed out that a wad of cotton held in the hand of the operator would work just as well as his fingers. Then if that wad were to get nipped by the beater, no harm would be done. The operation of starting the cotton into the feed rolls is still done, the operator just uses a wad of cotton instead of his fingers.

In analyzing the operation of doffing a Barber-Colman warper it was noticed that the operator would wind the tension arms just part of the way down in preparation to putting in the empty beam. The "why" revealed that he wound it until one particular screw was even with a certain bolt on the frame. This he said was necessary so that the latches would catch the beam and not allow it to fall back on him when he "kicked it up." In this the operator would sit on the floor in front of the warper with his back to the wall. With one or both feet he would shove the beam up into the warper. Serious injury could result if the latches did not catch hold on the beam spindles. His position while doing this was quite awkward. Strains and sprains had resulted previously.

The prevention of this hazard was not in finding a safe way for the operator to push the beam, but to change the manner of doing it. The chain hooks used in lowering the full beam to the truck were used to draw in the empty one also. That had been the original way intended for the beam to be put in. There were some objections to changing, mostly of a mechanical nature, but these were worked out. For one thing, as the beam was drawn over the foot treadle, the warper would start running. Flat iron brackets mounted over the treadle allowed the beam heads to roll in without touching it. Treadles on newer warpers are not as long and this difficulty is not experienced. This is the second way to eliminate a hazard.

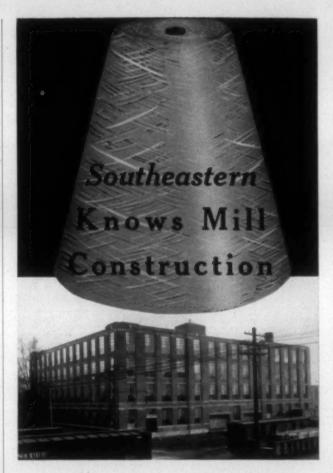
Distribution and Follow-Up

Distribution and follow-up of the results of the job analysis is of course a prime point. Safety meetings make good "courts of review" for the analysis of a job after it is completed and worked up. A well conducted discussion helps work out the best procedures in preventing the hazards found in the study. Since the whole group has a part in it, there will be more interest in observing the new methods decided on. Much of the sameness of safety meeting will be relieved by these discussions. Some workable safety regulations can result that are up-to-date.

Job analysis is not a cure all, a patent medicine that will automatically eliminate accidents in our mills. It is a tool and must be considered just that. The size and shape of the tool must be made or chosen to suit the task. Specially trained men are not needed to carry it out. It is just one of the means available to bring about better safety performance in our plants. As to how its use can tie into the basic needs of a good safety program in a typical cotton mill, let us review briefly those needs:

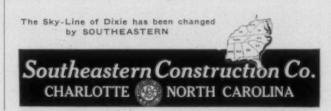
- 1. Co-operation of employees. This is the starting place for job analysis.
- 2. Vitality of safety program. Job analysis helps put a purpose in the safety work, gives variety to safety meetings, and encourages co-operation of everyone.
- 3. Systematic study of causes of accidents. Essentially, this is job analysis, either before or after some hazard has resulted in an accident. Supervisors co-operating in a program of job analysis are trained in the investigation of accidents.
 - 4. Systematic follow-up. Job analysis is a perfect fit.
- 5. Regular supervision. Job analysis is a tool that can be used by the regular supervisory organization in the mill. Its use must be sponsored and guided by the one in charge of the safety program in the plant.

The first thought one has of job analysis is that it is something for use only in large plants and organizations; that trained, full time men are needed for it; that special personnel departments are needed. In our discussion, we have thought of job analysis just from the standpoint of safety, and that for this it can be of distinct help in the safety program of a typical mill. It has two functions. First, it is an end in itself in that it tends to prevent accidents by discovering and overcoming hazards. Important as this is, the second can be of even more importance in the mill. Job analysis is also a means to the end in that it stimulates the safety program; trains supervision to be more on the alert, and to be more systematic in investigation and follow-up. It can be a channel through which safety can flow throughout the organization, to superintendent, overseer, second hand and employee.



Typical construction work done by SOUTHEASTERN for the Textile and related industries

The landscape of Dixie is dotted with hundreds of Textile and other Industrial plants—built "According to Plans and Specifications" by SOUTHEASTERN—giving proof of the specialized skill and ability to satisfy you and your architect in heavy or light mill construction—when peace time comes again. Since Pearl Harbor, SOUTHEASTERN has been constructing huge cantonments, bases, housing and hospital projects—to build a stronger future. In the meantime, if necessity dictates the reconditioning, adding to or replacing parts of your present plant facilities, SOUTHEASTERN offers its experience in obtaining WPB approval and determining project costs.



大小小人名 人名人名人人 人名 人名

Traveler Target For Today!

In mills all over America, new, more difficult Assist your spinning department to split their production target "dead-center" with superior Dary Travelers!

See a Dary representative!

THE DARY RING TRAVELER CO., Taunton, Mass.

JOHN E. HUMPHRIES, Box 843, Greenville, S. C. JOHN H. O'NEILL, Box 720, Atlanta, Ga. H. REID LOCKMAN, Box 515, Spartanburg, S. C.







LEATHER BELTING

all types



FIRE BRICK

CHECK (domestic) STRAPS

Goodrich Mechanical Rubber Goods

KEYSTONE BELTING CO.

218 N. Third St.

Philadelphia, Pa.

T. J. DIGBY, JR.

Southern Representative Box 244 Phone 159-W

Greer, S. C.

U. S. Will Buy Indian Burlap

The Board of Economic Warfare and the Defense Supplies Corp. jointly announced recently that arrangements have been made for direct Government purchase of approximately 100,000,000 yards of burlap in India. Indian textile mills have agreed to unseal ten per cent of idle looms and increase working schedules in order to provide the burlap within a reasonable period.

The purchase will supplement the backlog and normal purchases of the trade. It is expected that shipping will be available to lift this purchase, as well as outstanding trade commitments, and that the government will handle its program through normal trade channels.

J. Craig Smith Praises War Effort Of Alabama Cotton Mills

(Continued from Page 16)

and doubtless can be made to work better as our members come to appreciate its value. We have made a good start toward getting our former employees off the unemployed rolls and back into production with resultant benefits to the war effort, the unemployed worker, the former employer and the new employer.

New Secretary Chosen

At the beginning of the past year the first duty of your officers was the selection of a successor to Major Dwight Wilhelm. Major Wilhelm officiated at the birth of our reorganized association. He had served us well and it was with no little anxiety that I took office as your president at the exact time of our loss of Major Wilhelm. We have employed Ed C. Langham as our secretary, after interviewing a number of applicants. I have been highly pleased with our choice and wish to express my appreciation to Arthur Cook for sending Mr. Langham to see me. Mr. Langham was unfamiliar with our industry but he is learning rapidly of our problems, has been well received by our membership and I feel sure will be of increasing value to us. We were very fortunate in having Mrs. Ruth Shaw continue in her position.

All of us can and should be proud of the record for safety that our industry in Alabama has made during the past year. Our present record compared with the records of other textile states, and with our own past record, is splendid. Any program which has for its purpose the saving of the bodies and lives of our people should have, and does have, our earnest attention. I would like to see each and every mill in our association participate in the annual contest for the Hugh Comer Safety Trophies.

We have a textile school at Auburn which is deserving of our full support. The attendance there now is pitifully small and this small attendance is not due entirely to the war. The day when a man could run a cotton mill without a technical education is gone forever. If we are to operate our mills successfully we must have technically trained boys and girls to help us. I urge that we use our best efforts, both as an association and as individuals, to encourage attendance at the textile school at Auburn.

The Georgia-Alabama Textile Traffic Association has been reorganized. B. L. Murphy, the new manager, is an exceptionally able traffic man. He speaks a language that is intelligible only to other traffic men, but he can be of tremendous value to our industry. This traffic association is deserving of a greater support than it is getting.

During the year the operating executives and office manager groups have carried on their activities in a satisfactory and encoraging manner despite the press of added work and transportation difficulties.

Three "E" Award Winners

Three of our members have brought honor to our association by having won the Army-Navy "E." The West Point Mfg. Co. hit the "E" jackpot and later the Lincoln Mills and the Tallasee Mills won the coveted award. We speak of these three members with pride, not unmixed with envy.

Alabama cotton mills and cotton farmers have much in common. I hope we will never let anyone persuade us to get on the opposite side of the political fence from our friends and neighbors who grow cotton. We want to see the farmer get a full and fair price for his cotton. We know that as he prospects, we prosper. We should never let him forget this, for there are others who are telling him that we want to buy his cotton at a cheap price.

It also seems important to me that we cultivate the natural community of interest that we have with the other groups in the raw cotton industry. I refer to the ginners, warehousemen, cotton merchants and crushers. These four groups, together with us and the farmers, compose the National Cotton Council. The council offers us a splendid medium to work at our many joint interests and problems. Sixty-three of our mills, which have 89 per cent of the spindles in Alabama, are supporting financially the work of the National Cotton Council. We are proud of these figures. We look forward to the day when every mill in Alabama will have a part in the program of the council. Oscar Johnston is an eloquent and fearless leader who is working for the cotton industry without compensation. He has surrounded himself with an extremely able staff. Our participation in the program of the council is evidence that Mr. Johnston's efforts are appreciated in Alabama, but we should stand with him 100 per cent.

In making his report to our annual meeting in 1939, Rube Jennings said: "Here I would like to say that I feel that Alabama is particularly fortunate in having a man of the caliber and ability and integrity of Frank Dixon as its chief executive. It is particularly encouraging to us to find in him a man who understands the real needs of our state, with an eagerness to be fair and just, and I wanted to take this occasion to express appreciation of his courtesy, consideration and co-operative spirit toward us." Frank Dixon more than fulfilled our high expectations. Lesser men are now being mentioned by the nation's press as presidential possibilities. I know that I voice the sentiment of this group when I say that I hope Frank Dixon has not permanently retired from public life.

Alabama is most fortunate in now having Chauncey Sparks as chief executive. Governor Sparks brings to his high office a mind trained in governmental affairs, an intellectual honesty even his political enemies have never questioned, and the unwavering courage of his own convictions. In my opinion, our state government is not one of the things we must worry about for the next four years.

I consider it no small honor to have been president of the association representing the largest industry in Alabama. I have enjoyed my term of office and I thank you for it.





SCRUBBING POWDER Every year more attention is being

given to the cleanliness and preservation of mill floors. Clean, white, safe floors reflect in personnel, production and profits.

e DENISON MANUFACTURING CO SHEVILLE NORTH CAROLINA



Motor Drive, Silent Chain, Center of Screw.

Push Button Control - Reversing Switch with limit stops up and down.

Self contained. Set anywhere you can run a wire.

Our Catalogue sent on request will tell you more about them.

NNING & BOSCHERT PRESS CO., Inc.

328 West Water St.

SYRACUSE, N. Y.



APPRAISALS - REPORTS - WATER TREATMENT - WATER SUPPLY - SURVEYS - POWER

TEXTILE FINISHES for COTTON, RAYONS and MIXTURES

TEXTILE OILS - HEAVY CHEMICALS

Charlotte Chemical Laboratories, Inc. Founded 1914 Charlotte, North Carolina

Cleaners and Laundries Expected To Treat Clothes

Treating clothes with a chemical making the garments shed water and resist stain soon may be a common operation for dry cleaners and laundries, the Fine Chemicals Division of E. I. du Pont de Nemours & Co. announced recently.

Two improved water repellents developed by Du Pontone for use with dry cleaning fluids and the other with wet washes-make readily available for civilian garments a protection which already is extensively employed in care of clothes for the armed forces.

Clothes are made water and stain resistant by dipping them in a solution after washing or dry cleaning. chemical treatment of the fabric cannot be seen or felt, has no odor, and does not impair the appearance or draping qualities of the garment.

A fabric made water repellent by these chemicals does not prevent normal evaporation from the human body as does a waterproofed fabric such as a rubberized raincoat. Treated garments usually clean more easily, saving time and preserving materials. Maintenance of the original properties of the fiber, conservation of clothes and added health protection for those who must be outdoors in bad weather are among the advantages claimed for repellents.

Practical Textile Designing

(Continued from Page 14)

Fig. 101 illustrates the 52 degree steep twill by moving one, one, and two points.

Fig. 102 illustrates the 63 degree steep twill by moving two points.

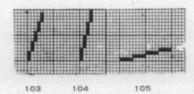


Fig. 103 illustrates the 70 degree steep twill by moving three points.

Fig. 104 illustrates the 75 degree steep twill by moving

Fig. 105 illustrates the 15 degree reclining twill by moving four points.

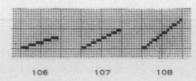


Fig. 106 illustrates the 20 degree reclining twill by moving three points.

Fig. 107 illustrates the 27 degree reclining twill by moving two points.

Fig. 108 illustrates the 38 degree reclining twill by moving one, one, and two points.

Copper Scrap Shortage Is Listed As Acute

The United States depends upon scrap as the source for approximately 40 per cent of its copper. Much of this scrap is usable by remelting and without further refining. Such items as copper wire are almost pure and can be used in place of virgin copper. The flow of this almost pure scrap, known as Number One and Number Two grades is diminishing so rapidly that the gap must be filled by other less pure grades which must be refined before they can be used.

Even greater shortages are being felt in these "less pure" grades requiring refining. These are termed "refinery brass" and "copper-bearing" material. In appealing to industry for additional copper, brass and bronze scrap, the War Production Board emphasizes that in December, 1942, scrap refineries received only 4,800 tons of these grades—not enough to enable them to operate at one-fifth capacity.

Not only are we seriously short of all grades of copper, brass and bronze scrap, but the output of mined ores cannot meet demands because of manpower shortages. As in steel, the use of scrap makes possible speedier production as well as manpower and transportation savings.

To ease the scrap shortage, the Salvage Division of WPB appeals to industry to make up a forecast deficit of 625,000 tons of refinery brass and copper-bearing materials in 1943. This amounts to approximately 52,000 tons a month more than the 1,000,000 tons collected in 1942.

The goal WPB hopes industry will achieve in 1943 is a 62½ per cent increase in the flow of copper, brass and bronze scrap. This will result in capacity operations of the nation's scrap copper refineries.

The 1,625,000 tons collected will produce approximately 1,000,000 tons of copper to be used in the war effort.

Most dramatic are those direct uses of copper in brass cartridge cases and in navigation and other precision instruments. Equally important, however, are the bronze gears and bearings so necessary to the machinery producing weapons of war. Numerous working parts of guns, tanks, ships, etc., are also made from copper-bearing bronze.

The electrical nerve-centers of ships, tanks, guns and planes depend entirely upon the conductivity of copper. In addition, not one generator or motor now in the war effort could continue to operate if it weren't for vital copper parts.

Although copper scrap is No. 1 on the list of critical material shortages, iron and steel scrap inventories are diminishing rapidly. It is hoped that the double emphasis on both copper and steel scrap will increase the flow of each.

The copper and steel producers of the country look to their fellow industrialists for the raw materials which will enable them to meet demands through 1943.

Say Nylon Tires Stronger

The United States Rubber Co. claims the development of an airplane tire with nylon which is 100 per cent stronger than any previously made tire. The use of nylon in tires is looked upon as an important commercial development after the war.



QUERY: What is DRAX?

FACT: DRAX is a stable, aqueous emulsion of wax, aluminum salts and emulsifying agents.

QUERY: Why has it such high water-repellency and stain-resistance?

FACT: Because of a special method developed by S. C. Johnson & Son of making the colloidal particles extremely small and uniform in size. Much better impregnation of the fibres is the result. Application is uniform throughout the entire run of cloth.

QUERY: Is it easy to apply?

FACT: Yes. Simply dilute DRAX with ordinary water. Apply in a single bath, in any available type of padder. Temperatures may vary from room temperature to boiling. DRAX may be used on vat or sulphur-dyed textiles. Its acidity (pH 3.5 to 5) requires a minimum of control.

QUERY: DRAX users?

FACT: Textile manufacturers making army and navy uniform cloth, material for work clothes . . . as well as fabrics of all kinds for civilian life.

QUERY: What about MILDEW?

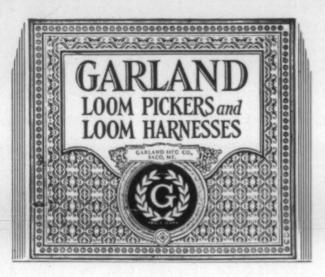
FACT: DRAX formula 1860 PMA contains sufficient quantity of phenyl mercuric acetate to provide a mildew-proofing which meets the microbiological test for chaetomium globosum.

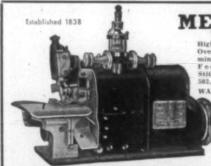
QUERY: Any other important facts about DRAX?

FACT: Yes, DRAX meets the water-repellent requirements of certain Quartermaster textile specifications. Its high water-repellency helps improve hand. It is economical to use. Requires a minimum of regulating with organic acids during application.

Write for the facts about DRAX. Simply address:







eaming and Hen Machines Produ Federal Specification Stitch Types 501, 502, 502, 504, 505.

WAR WORK DEMANDS

Quality Results
—High Froduction — Convenient Handling—
Minimum Time
Out for Adjustment and Repair—Low Upkeep Costs.

For Best Results Use a Machine Suitably Arranged for Your Work.

The MERROW MACHINE COMPANY

Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

C. A. Auffmordt & Co.

Factors

468 Fourth Avenue NEW YORK CITY



Dixon's Patent Re-

Send for samples

DIXON LUBRICATING SADDLE CO., Bristol, R. I.

Stein, Hall Promotes Bill Kline

W. M. ('Bill'') Kline, Jr., has been appointed assistant manager of the Charlotte Southern branch of Stein, Hall & Co., Inc., manufacturers and distributors of textile starches, gums and dextrines.

C

CO

W

H

be

di

an

im

of

di

co

ab

cle

iar

Sa

TE

Mr. Kline has been associated with Stein Hall for 14 years, ever since his graduation from Clemson College, Clemson, S. C., where he specialized in textile chemistry. After a year in the Stein, Hall textile laboratory in Charlotte, he became a traveling representative for the company's textile sizing, finishing and printing materials. He is known throughout the Southern textile industry, especially in the South Carolina territory, which he covered until his appointment as assistant to Ira L. Griffin, manager of the Charlotte branch.

Mr. Kline has lived in Greenville with his wife and daughter. He is moving to Charlotte, where his new duties as assistant manager will include coverage of the North Carolina and Virginia territory formerly covered by Thomas C. ("Red") Davis, who died recently. Mr. Kline is a member of the Southern Textile Association and the American Association of Textile Chemists and Colorists and has served on various committees of both organizations.

"Wartime Conservation" Westinghouse Book

Wartime Conservation, a new 96-page booklet just published, contains recommendations by Westinghouse engineers for selecting, applying and using electrical equipment so as to achieve the best possible output with the greatest saving in critical materials.

The book covers up-rating of motors, thermal temperature loading of transformers, industrial network systems, line equipment and materials; and give tips on saving and salvaging materials as practiced in the various Westinghouse plants.

In addition to pointing out ways of saving vital materials in new equipment purchased, the booklet gives many examples of how existing equipment can be made to give better service and greater output by up-rating or rebuilding with more efficient materials than originally used.

All recommendations in this new book are in line with policies suggested by the WPB for the conservation of critical materials. A copy of Booklet B-3206 may be secured from Department 7-N-20, Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.

Only Lightweight Burlap Set Aside

Imported burlap required to be set aside by Order M-47 for release by authorization of the War Production Board must be lightweights, seven and one-half ounce to nine ounce inclusive, under provisions of the order as amended March 30.

Previously, the heaviest constructions were required to be set aside. This is no longer necessary. It was explained that present requirements for burlap lay emphasis primarily on the lighter types.

No exceptions to the requirement are permitted unless by specific WPB instructions.

Under M-47, two-thirds of every cargo of burlap received in this country is set aside for essential military use and can be disposed of only with WPB permission.

Three Armstrong Cork Co. Officials Are Promoted

LANCASTER, PA.—The election of Keith Powlison to the position of vice-president and controller of Armstrong Cork Co. was announced April 2 by H. W. Prentis, Jr., company president.

Announced at the same time was the election of M. J. Warnock to succeed Mr. Powlison as company treasurer and the appointment of Cameron Hawley as director of advertising and promotion to succeed Mr. Warnock.

Mr. Powlison joined Armstrong Cork Co. in 1922 as a member of the sales organization of the floor division. He left the company to return to academic work, receiving the







Hawley

Powlison

Warnock

degree of Doctor of Philosophy in Economics at Johns-Hopkins University in 1928. After a period of association with the Security-First National Bank of Los Angeles, he returned to Armstrong Cork Co. as assistant treasurer in 1932. In 1938 he was elected treasurer.

A graduate of the University of Oregon, Mr. Warnock came with Armstrong Cork Co. as a salesman in 1926. He served as manager of the company's branch office in Seattle before coming to Lancaster as assistant manager of the floor division in 1930. He was named director of advertising and promotion in 1941.

Mr. Hawley, who joined the company in 1927, has served in a number of sales, advertising and sales promotion capacities, including that of director of Armstrong's bureau of retail merchandising. Since 1941 he has been assistant director of advertising and promotion.

Camouflage Net Finish Developed

WILMINGTON, DEL.—A new fire, water and weather resistant finish for cotton camouflage nets used in all climates was announced April 2 by the Fine Chemicals Division of E. I. du Pont de Nemours & Co.

The Army Engineer Corps has tested the new chemical finish, which is flexible in sub-zero weather, but which will not become sticky or support combustion at high temperatures. It is made in sand and olive drab shades, which colors are very fast to light and exposure.

This finish eliminates what Du Pont terms as objectionable properties and hazards of solvent type agents. An aqueous emulsion, it can be applied by padding and drying with moderate heat treatment.

Although developed by Du Pont especially for the Army, such peacetime applications as the treatment of tobacco cloth are indicated when the material is available for civilian uses. The new product is officially called Camouflage Sand No. 3 Finish and Camouflage Olive No. 9 Finish.

SURE SIGN of GOOD APRONS



To enable you to readily identify the aprons in your frames that give you superior service, we are now branding our aprons with the KENTEX arrow trademark shown above.

This trade-mark will be your assurance of the dependable quality, durability and precise uniformity you have learned to expect in long-draft aprons made by this company.



TEXTILE APRON

EAST POINT, GEORGIA

J. B. KENNINGTON, OWNER

GENERAL MILL REPAIRS

Repair Steel Rolls, Flyers and Spindles

Flutes on steel rolls raised and sized to original diameter METHOD OF RAISING FLUTES PATENTED, NO. 1,887,510

Give Us a Trial

C. E. HONEYCUTT

GASTONIA ROLLER, FLYER & SPINDLE CO.

1337 West Second Avenue • Gastonia, North Carolina

Ray Chemical Company Charlotte, N. C.

TEXTILE CHEMICALS

BARNES TEXTILE ASSOCIATES

INCORPORATED

CONSULTING ENGINEERS to the TEXTILE INDUSTRY FOR OVER 30 YEARS

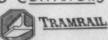
Operating Methods Mechanical Survey Cost Methods Practical Budgets Creative Counsel Special Problems

10 High Street Boston, Mass. 318 Montgomery Bldg., Spartanburg, S. C.

Materials Handling Equipment Pays for Itself

STANDARD CONVEYORS





LYON Shelving Lockers Boxes

Nutting

Floor Trucks Wheels, Casters —5 Types Rubber Wheels BARRETT LIFT-TRUCKS Elwell-Parker Electric Trucks PORTABLE ELEVATORS

ENGINEERING SALES CO.

BUILDERS BUILDING, CHARLOTTE, N. C.
ALLEN BUILDING, GREENVILLE, S. C.

Insulation Tubing Prices Are Set

Specific maximum prices for four manufacturers of gray insulation tubing—a cotton fabric used for many purposes in electrical insulation in its finished and varnished state—were established March 30 by the Office of Price Administration.

The cents-per-yard prices are based on costs of the producers and, in all cases but one, represent current market prices. The ceilings for the manufacturers of the gray goods are related to maximum prices for bias-cut insulation cambric when finished and varnished, prices for which are being established in a new regulation.

Maximum prices for the gray insulation tubing apply only to the manufacturer of each construction, as follows:

	Constru	action	Ma	nufacturer			ents pe Tubula Yard
27	"-68x72	3.37 yd.—	Union	Buffalo M	fills Co.,	Union,	18.25
		3.37 yd	Gaines	ville Cotto	n Mills,	Gaines-	10.05
29 ½ 27	4" 68x72 " 72x68	2.35 yd.— 4.15 yd.—	-Pacific -Utica	Mills, Bos & Mohaw N. Y.	ton, Mass	n Mills,	26.50
			Utica,	N. Y	****	****	20.00

These mills represent the sole known producers of these fabrics. Any other mill which begins production of gray insulation tubing must apply to OPA for a maximum price under the provisions of Maximum Price Regulation 118—Cotton Products. Amendment No. 17 to this regulation became effective April 5, 1943.

The amendment, in setting ceiling prices, allows a slight increase above current market price for Utica & Mohawk Cotton Mills. The increased price is justified, OPA stated, since the ultimate commodity is used extensively for military requirements and the costs of production in this Northern mill have been verified by OPA accountants.

Viscose Plant Being Converted

A program of converting approximately one-half of the manufacturing facilities of the Lewiston, Pa., plant of the American Viscose Corp., from the production of regular viscose rayon yarns to higher strength yarns for use in military equipment, has been partially completed and these yarns are now being shipped to users. The conversion provides yarns of the types needed for fragmentation bomb parachutes, aerial delivery and cargo parachutes and aerial tow targets.

It is expected that the conversion will be entirely completed within three or four months, the time being dependent upon the delivery of needed materials. Conversion of the company's Marcus Hook, Pa., plant to the production of higher strength rayon yarn was completed recently, and that plant is now 100 per cent on war work.

Electronic Specialists Appointed

To help industry with electronic application problems, 18 General Electric industrial electronic specialists in G.-E. offices throughout the country have been appointed, according to an announcement by J. E. N. Hume, commercial vice-president of General Electric Co. These specialists will be responsible for all industrial electronic applications in their territories.

The new General Electric industrial electronic specialists include Frank C. Neal, Jr., Dallas, and R. H. Jackson, Atlanta.

Number of Learners and Their Wages Increased in Textile Industries

Under an order recently issued a larger number of learners in the textile and several apparel industries may be employed and the wage rate for those learners is increased from as low as 22.5 to 35 cents an hour.

This was announced by L. Metcalfe Walling, administrator of the Wage and Hour and Public Contracts Divisions of the U. S. Department of Labor, who signed the order, effective March 22, 1943. The order amending the terms of learner employment under the Wage and Hour Law is for the duration of the war emergency only, and is intended to replace losses arising out of abnormal labor turnover.

The facts upon which the order is based, said Mr. Walling, were presented by representatives of employers and labor at a public hearing held in New York on October 26 and 27, 1942, before Merle D. Vincent, director of the Exemptions Branch. Mr. Walling found that the present rapid rate of turnover in many localities makes it necessary to train learners in greater numbers than previously permitted. He said there are, however, many localities where experienced workers are still available and certificates will not be granted in those localities.

"Employers in many areas," Mr. Walling added, "are now drawing on a labor supply not formerly included in the groups available for employment. Many of these are middle aged women who are returning to the industry, an increasing number are young workers below ages previously employed, and some are negro workers who were not previously employed in industrial occupations."

The order therefore lifts the restrictions on the number of learners who may be employed at subminimum rates and allows such employment to the extent of actual need. Certain facts must be shown in proof that an employer has an actual need for a larger number of learners than the previous limitation. For example, it must be shown that experienced workers are not available and that learners are available for employment at subminmum wage rates, that competitive advantages will not result from the issuance of a learner's certificate, and that the employer's experienced workers can earn wages substantially above the required minimum wage rate.

The issuance of these certificates is going to be watched very carefully, Mr. Walling stated, and an analysis will be made as to their effectiveness in solving the abnormal labor turnover problem. If it is found in the future that no curtailment of opportunities would result from a minimum rate of 40 cents for all workers and that workers are unobtainable for less than 40 cents an hour, then Mr. Walling indicated that he might consider doing away with all learner certificates for these industries. He added that he foundmany employers had already increased learner rates and at the hearing some employers recommended an increased rate.

"Because employers are having an increasingly difficult time in obtaining anyone who is willing to work at less than 40 cents as a learner in these industries," Mr. Walling concluded, "I am not at all certain that this order will really solve this problem of abnormal turnover. I suspect that in the end it will be found that the solution lies in paying not a learner rate but the regular minimum rate of 40 cents an hour. By paying such a rate the industry may be able to stabilize its working forces and reduce its turnover."



To fill the needs of 11,000,000 fighting men for war textiles, plus essential civilian products, with no new machinery available—that's a REAL CHALLENGE to mill ingenuity. We've seen a number of mills step up spinning and twisting production materially by ring changes: in some cases gaining 10% or more by replacing worn rings with new DIAMOND FINISH; and in others by switching to the special Eadle lubricated designs, with gains up to 50% or more. Our COMPLETE line guides you to MAXIMUM production.

WE MAKE ALL TYPES OF HOLDERS.

WHITINSVILLE (MASS.) SPINNING Makers of Spinning and Makers of Spinning and FINISH Twister Rings since 1873



SOUTHERN SOURCES OF SUPPLY

FOR EQUIPMENT, PARTS, MATERIAL, SERVICE

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABINGTON TEXTILE MACHINERY WORKS, Abington, Mass. Offices at Boston, Mass., and Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and Warehouse, 603 Stewart Ave., S.W., Atlanta, Ga., F. H. Webb, Dist. Mgr. Sou. Sales Reps.; C. A. Carrell, 523 Clairmont Ave., Decatur. Ga., Phone Dearborn 6267; K. J. Pedersen, 301 W. 10th St. (Tel. 2-2903), Charlotte. N. C.; William G. Policy, 937 Cherokee Lane, Signal Mountain, Tenn., Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La., Phone Magnolia 5859. Warehouses at Atlanta, Ga., Greenville. S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore. 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.

ALLEN CO., 440 River Rond, New Bedford, Mass. Sou Repr.: L. E. Wooten, Fort Mill, S. C.

AMERICAN BLOWER CORP., P. O. Box 58, Roosevelt Park Annex, Detroit. Mich. 7 N. 6th St., Richmond, Va.; 1211 Commercial Bank Bidg., Charlotte, N. C.; Room 714, 101 Marietta St. Bidg., Atlanta, Ga.; Room 209, Jahncke Bidg., 316 Howard Ave., New Orleans, La.; 619 Texas Bank Bidg., Dallas, Tex.; 312 Keller Bidg., Houston, Tex.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C., Hugh Puckett, Sou. Sales Mgr. Reps.: John D. Hunter, E. H. Driver, Paul F. Haddock, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 410 N. Mendenhall St., Greensboro, N. C.; C. B. Suttle, Jr., 428 Clairmont Ave., Decatur, Ga.; K. E. Youngchild, 10 South St., Mobile, Ala.

AMERICAN MOISTENING CO., Providence, R. I. Sou, Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN VISCOSE CO., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C. Harry L. Dalton, Mgr.

ARKANSAS CO., Inc., P. O. Box 210, Newark, N. J. Sou. Repr.: Jasper M. Brown, 1204 Greenwood Cliff, Charlotte, N. C.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou, Office, 33 Norwood Place, Greenville, S. C. J., V. Ashley, Sou, Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Head-quarters: 1211 McCall St., Charlotte, N. C., Mgr., Walter T. Bunce, Phone 2-4073; Technical Service Men: Reid Tull, 116 W. Thomas St., Salisbury, N. C., Phone 1497-J; Philip L. Lavole, 1211 McCall St., Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone 2922; John R. Brown, P. O. Box 749, Trussville, Ala., Phone 127; Warehouse, 1211 McCall St., Charlotte, N. C.

ASHWORTH BROS., Inc., Charlotte, N. C. Sou, Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD MACHINE CO., Stonington, Conn. Sou. Rep.: Fred Salls, Johnston Bldg., Charlotte, N. C.

AUFFMORDT & CO., C. A., 468 Fourth Ave., New York City. Sou. Rep.: George B. Wilkinson, 618 Johnston Bidg., Charlotte, N. C.

BAHNSON CO., THE, Winston-Salem, N. C.

BANCROFT BELTING CO., Boston, Mass. Warehouse and Sou, Distributor, Carolina Supply Co., Greenville, S. C.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, \$1 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARIUM REDUCTION CORP., S. Charleston, W. Va. Sou. Distributors: American Cyanamid & Chemical Corp.; F. H. Ross & Co., Charlotte, N. C.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARNES TEXTILE ASSOCIATES, Inc., 10 High St., Boston, Mass. Sou. Office, 318 Montgomery Bldg., Spartanburg, S. C.

BAY STATE TEXTILE CO., 220 Hartwell St., Fall River, Mass. N. C. Agt., John Graham Webb, P. O. Box 344, Hillsboro, N. C. Phone 127-B.

BECCO SALES CORP., Buffalo, N. Y. Sou. Reps.: J. D. Quern and D. S. Quern, 1930 Harris Road, Charlotte, N. C.

BEST & CO., Inc., EDWARD H., Boston, Mass. Sou. Rep.: W. C. Hames, 185 l'inecrest Ave., Decatur, Ga., Phone Dearborn 5974; Ralph Gossett, William J. Moore, 15 Augusta St., Greenville, S. C., Phone 150.

BOND CO., CHAS., 617 Arch St., Philadelphia, Pa. Sou. Reps.: John C. Turner, 107 16th St., N.W., Phone Hemlock 2118, Atlanta, Ga.; Harold C. Smith, Poinsett Hotel, Greenville, S. C.

BORNE, SCRYMSER CO., Works and Offices, 632 S. Front St., Elizabeth, N. J.; Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgr., H. L. Slever, Charlotte, N. C. Reps.; W. B. Uhler. Spartanburg. S. C.; R. C. Young, Charlotte, N. C.; John Ferguson, LaGrange, Ga.

BRADLEY FLYER & REPAIR CO., 1318 W. Second Ave., Gastonia, N. C.

BREWERTON, E. H., 1019 Woodside Bldg., Greenville, S. C.

BROOKLYN PERFEX CORP., Brooklyn, N. Y. Sou. Repr.: John Batson, Box 841, Greenville, S. C.

BROWN CO., THE DAVID, Lawrence, Mass. Sou. Reps.: Greenville, S. C., Ralph Gossett and Wm. J. Moore; Griffin, Ga., Belton C. Plowden; Dallas, Tex., Russell A. Singleton Co., Inc.; Gastonia, N. C., Gastonia Mill Supply Co.; Chattanoga, Tenn., James Supply Co.; Spartanburg, S. C., Montgomery & Crawford.

BRYANT ELECTRIC CO., 625-27 E. Franklin Ave., Gastonia, N. C.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. C. A. Schier, W. A. Bentel, W. J. Kelly, Jr., George S. McCarty, T. A. Martin, George Rodgers, care Burkart-Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, care Burkart-Schier Chemical Co., Nashville, Tenn.; Lawrence Newman, Claude V. Day, care Burkart-Schier Chemical Co., Knoxville, Tenn.; J. A. Brittain, 3326 Cliff Rd., Birmingham, Ala.; Byrd Miller, Woodside Bidg., Greenville, S. C.; Nelson A. Fisher, 1540 Elmdale Ave., Chicago, Ill.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Repr.: J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C. R. D. Hughes Sales Co., 2106 S. Lamar St., Dallas, Tex., Texas and Arkansas; Eastern Rep. (including Canada): C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep.: Mellor, Bromley & Co., Ltd., Leicester, England.

CHARLOTTE CHEMICAL LABORATORIES, Inc., Charlotte, N. C. Peter S. Gilchrist, Jr., Rep.

CIBA CO., Inc., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON CO., Clinton, Iowa. Sou. Reps.: Luther Knowles, Box 127, Phone 2-2486, Charlotte, N. C.; Grady Gilbert, Box 342, Phone 3192, Concord, N. C.; Clinton Sales Co., Inc., Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C.; Boyce L. Estes, Box 252, Phone 469, LaGrange, Ga.; Gordon W. Enloe, P. O. Box 351, Gadsden, Ala.; Harold P. Goller, 900 Woodside Bidg., Tel. 3718, Greenville, S. C. Stocks carried at Carolina Transfer and Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta Ga.; Textile Products Distributing Co., Rock Hill, S. C.; Industrial Chemicals, Roanoke Rapids, N. C.

COCKER MACHINE & FOUNDRY CO., Gastonia, N. C.

COLE MFG. CO., R. D., Newnan, Ga.

CORN PRODUCTS REFINING CO., 17 Battery Place, New York City. Corn Products Sales Co., Southeastern Bldg., Greensboro, N. C., W. R. Joyner, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg. S. C., J. Cantey Alexander, Mgr.; Corn Products Sales Co., Woodside Bldg., Greenville., S. C., J. Alden Simpson, Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga., C. G. Stover, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala., L. H. Kelly, Mgr., Stocks carried at convenient points.

CURTIS & MARBLE MACHINE CO., 72 Cambridge St., Worcester, Mass. Sou. Reps.: Greenville, S. C., 1000 Woodside Bldg., W. F. Woodward, Tel. 8336; Dallas, Tex., O. T. Daniels, care Textile Supply Co.; Philadelphia, Pa., 794 Drevel Bldg., J. A. Fitzsiumons; New York, N. Y., 200 Fifth Ave., F. C. Bryant.

CUTLER, ROGER W., 141 Milk St., Boston, Mass. Sou. Office, Woodside Bldg., Greenville, S. C. Sou. Agts.: M. Bradford Hodges, 181 Spring St., N.W., Atlanta, Ga.: Jesse Hodges, 1836 E. Morehead St., Charlotte, N. C.; Byrd Miller, Woodside Bldg., Greenville, S. C.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep.: John E. Humphries, P. O. Box 843, Greenville, S. C.; John H. O'Neill, P. O. Box 720, Atlanta, Ga.; H. Reid Lockman, P. O. Box 515, Spartanburg. S. C.

DAYTON RUBBER MFG, CO., Dayton, O. Sou, Reps.: William L. Morgan, P. O. Box 846, Greenville, S. C.; J. O. Cole, P. O. Box 846, Greenville, S. C.; Thomas W. Meighan, 1149 St. Charles Place, Atlanta, Ga. Sou, Jobbers: Greenville Textile Supply Co., Greenville Belting Co., Greenville, S. C.; Textile Mill Supply Co., Charlotte, N. C.; Odell Mill Supply Co., Greensboro, N. C.; Young & Van Supply Co., Birmingham, Ala.; Industrial Supply, Io., LaGrange, Ga.; Textile Supply Co., Dallas, Tex.; T. A. Sizemore, 525 Grove St., Salisbury, N. C.

DENISON MFG. CO., THE. Plant and Sales Offices, Asheville, N. C. Sou. Service Repr.: L. B. Denison, P. O. Box 4072, Asheville, N. C.

DETERGENT PRODUCTS CO., 494 Spring St., N.W., Atlanta, Ga. Offices at: Columbia, S. C., Raleigh, N. C., Texarkana, Ark., Columbus, Ga.

DODENHOFF CO., W. D., 619 Rutherford St., Greenville, S. C. Sou. Reps.: John Ellison, Box 91, Greensboro, N. C.; Otis A. Zachary, Box 486, Atlanta, Ga.; Spencer W. Sparks, Chattanooga Bank Bldg., Chattanooga, Tenn.; T. Hunter Long, Box 485, Tampa, Fla.; O. L. Carter, 619 Rutherford St., Greenville, S. C. New England Sales Rep.: Herbert A. Derry, 94 Howard St., Melrose, Mass.

DRAPER CORPORATION, Hopedale, Mass. Sou. Offices and Warehouses, Spartanburg, S. C., Clare H. Draper, Jr.; Atlanta, Ga., 242 Forsyth St., S.W., W. M. Mitchell,

DU PONT DE NEMOURS & CO., Inc., E. I., Electrochemicals Dept., Main Office, Wilmington, Del.; Charlotte Office, 414 S. Church St., Le-Roy Kennette, Dist. Sales Mgr. Reps.; J. L. Moore, Technical Man; N. P. Arnold, 2386 Alston Dr., Atlanta, Ga., Technical Service Man; O. S. McCullers, 208 McPherson Lane, Greenville, S. C., Tech. Repr.

PAUL B. EATON, 218 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant. 118½ W. Fourth St., Charlotte, N. C., George Field, Mgr.; Clifton E. Watson, Mgr. Sou. Sales. Wm. S. Taylor, Supt. Charlotte Plant. Box 2036. Tel. 3-7503; Arthur W. Harris, Harris Mfg. Co., Agt., P. O. Box 1982, Phone Main 2643, Atlanta, Ga.; Alvin Braley, Southwest Supply Co., Agt., P. O. Box 236, Phone 170, Itasca, Tex.

ENGINEERING SALES CO., 217 Builders' Bidg., Charlotte, N. C., and Allen Bidg., Greenville, S. C.; S. R. and V. G. Brookshire.

FIDELITY MACHINE CO., 8908-18 Frankford Ave., Philadelphia, Pa. Sou, Reps.: John E. Fox. 1011 W. Palmer St., Charlotte, N. C.; R. C. Aycock, 911 Provident Bldg., Chattanooga, Tenn.

FOSTER MACHINE CO., Westfield, Mass. Sou. Offices, 509 Johnston Bidg., Charlotte, N. C.

FRANKLIN PROCESS CO., Providence, R. I. Sou, Plants, Southern Franklin Process Co., Greenville, S. C.; Central Franklin Process Co., Chattanooga, Tenn.

FULRRIGHT LABORATORIES, Inc., 205-6-7 Latonia Bldg., Charlotte, N. C. C. O. Fulbright.

FULTON BAG & COTTON MILLS, P. O. Box 1726, Atlanta, Ga.

GASTONIA BELTING & SUPPLY CO., Gastonia, N. C.

GASTONIA BRUSH CO., Gastonia, N. C.

GENERAL COAL CO., 1217 Johnston Bldg., Charlotte, N. C. J. W. Lassiter, Sou. Sales Mgr.; Frank W. Reagan, Asst. Sou. Sales Mgr. Reps.: G. P. W. Black, 107 McPherson Lane, Greenville, S. C.; H. G. Thompson, 97 Tacoma Circle, Asheville, N. C.; Guy H. Sowards, 2011 Fairview Road, Raleigh, N. C.; Hugh D. Brower, 2715 Lenox Road, Atlanta, Ga.; H. C. Sturtevant, 210 E. Franklin St., Office No. 5, Richmond, Va.; Dudley H. R. Wigg, 403-404 National Bank of Commerce Bidg., Norfolk, Va.; W. A. Counts, Res. Mgr., Law and Commerce Bidg., Bluefield, W. Va.; Dave B. Smith, Charlotte, N. C. Combustion Engineers, E. H. Chapman, Charlotte, N. C.; J. E. Campbell, Charlotte, N. C.

GENERAL DYESTUFF CORP., 485 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C., B. A. Stigen Mgr.

GILL LEATHER CO., Salem, Mass. Sou. Reps.: Belton C. Plowden, Griffin, Ga., Tel. 125; Mrs. W. G. Hamner, Gastonia, N. C., Tel. 229; Raleigh Gossett, 15 Augusta St., Greenville, S. C., Tel. 150; Wm. J. Moore, P. O. Box 1523, Greenville, S. C., Tel. 150.

GLOBE WOVEN BELTING CO., 1396-1398 Clinton St., Buffalo, N. Y. Sou. Sales Rep.: William A. Prince, Hendersonville, N. C.

GOSSETT MACHINE WORKS, Franklin Ave., Ext., Gastonia, N. C. GREENSBORO LOOM REED CO., Greensboro, N. C. Phone 5678. Geo. A. McFetters, Mgr., Phone 2-0205. A. A. "Red" Brame, Repr.

GREENVILLE BELTING CO., Greenville, S. C.

GULF OIL CORPORATION OF PA., Pittsburgh, Pa. Division Offices: Atlanta, Ga.—A. M. Wright, Greenville, S. C.; W. G. Robertson, Jr., Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou, Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga., J. C. Martin, Agt.; Johnston Bldg., Charlotte, N. C., Elmer J. McVey, Mgr., Fritz Zweifel, Fred Dickinson, Jim Miller, sales and service represen-

H. & P. SPOOL & BOBBIN CO., Lawrence, Mass. Sou. Distributors: The Textile Mill Supply Co., Charlotte, N. C.; Columbus Iron Works Co., Supply Dept., Columbus, Ga.; Textile Supply Co., Dallas, Tex.

HART PRODUCTS CORP., 1440 Broadway, New York City. Sou. Mgr., Charles C. Clark, Box 274, Spartanburg, S. C. Sales Rep.: L. M. Boes, Box 517, Charlotte, N. C.

Boes, Box 517, Charlotte, N. C.

HOUGHTON & CO., E. F., 303 W. Lehigh Ave., Philadelphia, Pa. Sou. Reps.: W. H. Brinkley, Gen. Sales Mgr., Sou. Div., 1301 W. Morehead St., Charlotte, N. C. Sou. Reps.: C. L. Elgert, 7 St. Paul St., Baltimore, Md.; T. E. Hansen, Box 398, Glen Allen. Va.: S. P. Schwoyer, 302½ Otteray Drive, P. O. Box 1507, High Point, N. C.; C. Schultze, 1301 W. Morehead St., Charlotte, N. C.; L. L. Brooks, 100 Jones Ave., Greenville, S. C.; J. J. Reilly, 2788 Peachtree Road, Atlanta, Ga.; V. C. Shaden, P. O. Box 935, Chattanooga, Tenn.; J. W. Byrnes, 701 N. San Jacinto, Houston, Tex.; H. J. Reid, 212 Lamont Drive, Decatur, Ga. (Size Demonstrator); W. C. McMann, Textife Sales Dept., 1301 W. Morehead St., Charlotte, N. C.: W. A. Isenberg, Lubrication Engineer, 1301 W. Morehead St., Charlotte, N. C.

HOUGHTON WOOL CO., 258 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Rep.: Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

HOWARD BROS. CO., Worcester, Mass. Sou. Office and Plant, 244 Forsyth St., S.W., Atlanta, Ga.; Guy L. Melchor, Sou. Agent; S. W Reps.: Russell A. Singleton Co., Inc., Mail Route 5, Dallas, Tex.; J. Floyd Childs, 244 Forsyth St., S.W., Atlanta, Ga.; Carl M. Moore, 833 York St., Gastonia, N. C.

IDEAL MACHINE CO., Bessemer City, N. C.

JACOBS MFG. CO., THE E. H., Danielson, Conn. Sou. Executive, W. Irving Bullard, Pres., Charlotte, N. C.; Sou. Sales Mgr., S. B. Henderson. P. O. Box 133, Greer. S. C.; Sou. Service Mgr., Dan B. Griffiu. P. O. Box 3096, Charlotte, N. C.; Asst. Sou. Service Mgr., H. McM. Bush, 318 W. Bessemer Ave., Greensboro, N. C.; Sou. Subsidiary. The E. H. Jacobs Mfg. Corp., Box 3096, Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Castonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hardware Co., Anderson, S. C.; Montgomery & Crawford, Inc., Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Greenville Textile Supply Co., Greenville, S. C.; Greenville Textile Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; The Young & Vann Supply Co., Birmingham, Ala.

JENKINS METAL SHOP, Gastonia, N. C.

JOHNSON CHEMICAL CO., Statesville Ave., Charlotte, N. C., P. O. Box 1418, Stephen J. Hawes, Norman P. Dort.

JOHNSON & SON, Inc., S. C., Industrial Wax Div., Racine, Wis. Sou. Reps.: H. J. Chapman, Sou. Mgr. for Textile Finishes; R. A. Bielawa, Special Textile Rep., S. C. Johnson & Son, Inc., 726 Ponce de Leon Place, N. E., Phone Hemlock 6448, Atlanta, Ga.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bidg., Greenville, S. C.; Claude B. Her, Sou. Mgr. Sou. Warehouses: Greenville, S. C., Charlotte, N. C. Sou Reps.: C. C. Switzer, Greenville, S. C.; Luke J. Castile, 924 Monticello Terrace, Charlotte, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.

KEYSTONE BELTING CO., 218 N. Third St., Philadelphia, Pa. Sou. Rep.: T. J. Digby, Jr., P. O. Box 244, Greer, S. C.

LAUREL SOAP MFG. CO., Inc., 2607 E. Tioga St., Philadelphia, Pa. Sou. Reps.: A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.; W. R. Sargent, P. O. Box 1044, Greenville, S. C.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga.

MERROW MACHINE CO., THE, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 2106 S. Lamar St., Dallas, Tex., Texas and Arkansas; Eastern Rep. (including Canada), C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep., Mellor, Bromley & Co., Ltd., Leicester, England.

MORELAND CHEMICAL CO., 314 W. Henry St., Spartanburg, S. C. Paul C. Thomas, Treas. and Gen. Mgr.

MORTON CHEMICAL CO., 2110 High Point Road, P. O. Box 368, Greenshoro, N. C., Phone 6623, Jos. R. Morton, Pres.; W. H. McCornick, Jr., Sec. and Plant Mgr.; S. V. Valjavee, Chief Chemist. Greenville, S. C., Office, Room 312 Woodside Bldg., Phone 4400, P. O. Box 1197; Robert Buck, Mgr.

MILLER, BYRD, Manufacturers' Agent, Woodside Bldg., Greenville, S. C.

NATIONAL ANILINE DIVISION ALLIED CHEMICAL & DYE Corp. Gen. Office, Rector St., New York City. Julian T. Chase, Res. Mgr., 201 W. First St., Charlotte, N. C.; Kenneth Mackenzie, Asst. to Res. Mgr., 201 W. First St., Charlotte, N. C. Salesmen: D. S. Moss. W. L. Barker, R. B. Murdoch, Harry L. Shinn, J. W. McCalla, A. R. Akerson Standard Bldg., Greensboro, N. C.; J. A. Parker, Jefferson Standard Bldg., Greensboro, N. C.; J. A. Parker, Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rodgers, 1006 James Bldg., Chattanooga, Tenn.; J. A. Spratt, 1006 James Bldg., Chattanooga, Tenn.; J. L. White, American Savings Bank Bldg., Atlanta. Ga.; W. H. Jackson, Apt. 10-A, Country Club Apts., Columbus, Ga.; F. L. Feagle, Jr., Masonic Temple Bldg., New Orleans, La.

NATIONAL RING TRAVELER CO., 854 Pine St., Pawtucket, R. 1. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Sou. Agt., L. E. Taylor, Charlotte, N. C. Sou. Reps.; Olto Pratt, Union Mills, N. C.; H. B. Askew, Box 272, Atlanta, Ga.; Wm. S. Johnstone, P. O. Box 993, Gastonia, N. C.

NEW ENGLAND BOBBIN & SHUTTLE CO., Nashua, N. H. Sou. Reps.: Charlotte Supply Co., Charlotte, N. C.; Industrial Supply Co., Inc., Clinton, S. C.; W. G. Hamner, Box 267, Gastonia, N. C.; A. G. Murdaugh, Griffin, Ga.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York City. Sou. Office, 1000 W. Morehead St., Phone 3-7191, Charlotte, N. C., Spartanburg, S. C., Atlanta, Ga., Greenville, S. C. Falls L. Thomason, Sou. Dist. Mgr.

NOBLE, ROY, New Bedford, Mass. Sou. Rep.: John P. Batson, P. O. Box 841, Greenville, S. C.

NORLANDER MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

NORMA HOFFMANN BEARINGS CORP., Stamford, Conn. 844, Atlanta, Ga. Reps.: W. W. Greer, P. O. Box 336, Greenville, S. C.: W. J. Greer, P. O. Box 305, Greenville, S. C.

NORTH, FRANK G., Inc., P. O. Box 92, Marietta, Ga.; P. O. Box

ONYX OIL & CHEMICAL CO., Jersey City, N. J. Sou. Reps.: Edwin W. Klumph and Cliff C. Myers, 121 E. 3rd St., Charlotte, N. C.; Cliff Smith, P. O. Box 671, Atlanta, Ga.

PABST SALES CO., 221 N. LaSalle St., Chicago, Ill. Sou. Rep.: W. A. Pardue, 2721 Augusta Road, Greenville, S. C., P. O. Box 1147. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PARKS-CRAMER CO., Plants at Fitchburg, Mass., and Charlotte, N. C. Atlanta Office, Bona Allen Bldg.

PEASE & CO., J. N., Johnston Bldg., Charlotte, N. C. WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Office: E. V. Wilson, 810 Woodside Bldg., Greenville, S. C.

PENICK & FORD, LTD., Inc., 420 Lexington Ave., New York City; Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 805 Bona Allen Bidg., Atlanta, Ga.; J. H. Almand, W. J. Kirby, Glenn M. Anderson, Atlanta Office; C. T. Lassister, Greensboro, N. C.; Guy L. Morrison, 902 Montgomery Bidg., Spartanburg. S. C.; T. H. Nelson, Charlotte, N. C. Stocks carried at convenient points.

PIEDMONT PROCESSING CO., Belmont, N. C.

PITTSBURGH PLATE GLASS CO., Columbia Chemical Div., Grant Bidg., Pittsburgh, Pa. Dist. Sales Office, 615 Johnston Bidg., Charlotte, N. C., James R. Simpson, Dist. Sales Mgr.

PRICE SPINDLE & FLYER CO., Spartanburg, S. C.

PROCTOR & SCHWARTZ, Inc., Philadelphia, Pa. Sou. Office, Johnston Bldg., Charlotte, N. C.

PROVIDENT LIFE & ACCIDENT INS. CO. (Group Accident and Health and Welfare Plans Div.), Chattanooga, Tenn. Southeastern Div. Office, 815 Commercial Bank Bidg., Gastonia, N. C.

RAGAN RING CO., Atlanta, Ga.

RAY CHEMICAL CO., 2816 S. Bldv., Charlotte, N. C.

ROHM & HAAS CO., 222 W. Washington Square, Philadelphia, Pa. Sou. Office: P. H. Del Plaine, Dist. Mgr., 1109 Independence Bldg., Charlotte, N. C., Phone 2-3201; A. K. Haynes, 1811 Meadowdale Ave., N.E., Atlanta, Ga. Phone Atwood 2619.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office, Box 1045, Greenville, S. C., Jack Roy, Rep. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., Walter W. Gayle, Sou. Agt.; Atlanta. Ga., John L. Graves and Miles A. Comer, Selling Agts.; Greenville, S. C., H. P. Worth, Selling Agt.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

SHINGLE & GIBB LEATHER CO., Philadelphia, Pa.

SINCLAIR REFINING CO. Dist. Office: 573 W. Peachtree St., Atlanta, Ga. State Offices: Atlanta, Ga.; Birmingham, Ala.; Jacksonville, Fla.; Columbia, S. C.; Charlotte, N. C.; Nashville, Tenn.; Jackson, Miss. Industrial Reps.: P. W. Godard, Birmingham, Ala.; L. M. Kay, Atlanta, Ga.; A. F. Landers, Lakeland, Fla.; R. R. Boatwright, Jacksonville, Fla.; S. M. Newsom, Tifton, Ga.; J. O. Holt, Raleigh, N. C.; C. C. Nix, Charlotte, N. C.; J. F. Whelchel, Columbia, S. C.; G. C. Kimbrough, Knoxville, Tenn.; P. A. Raiche, Memphis, Tenn.

SJOSTROM MACHINE CO., Lawrence, Mass.

SLIP-NOT BELTING CORP., Kingsport, Tenn. Sou. Reprs.: E. S. Meservey, 134 McClean St., Decatur, Ga.; Ga. and Ala. Repr.; G. H. Spencer, P. O. Box 1297, Gastonia, N. C.; N. C. Repr.: Jack Alexander, 2024 Rozzell's Ferry Rd., Charlotte, N. C.; part of N. C. and S. C. Repr.: T. E. Doane, 1421 W. Sullivan St., Kingsport, Tenn.; Tenn. and Va. Repr.: J. D. Cox, V.-Pres., Greenville Hotel, Greenville, S. C., and Kingsport, Tenn.

SOCONY-VACUUM OIL CO., Inc., Southeastern Div. Office, 1602
Baltimore Trust Bidg., Baltimore, Md. Warehouses: Union Storage Co.,
1600 W. Morehead St., Charlotte, N. C.; Textile Warehouse Co., 511
Rhett St., Greenville, S. C.; South Atlantic Bonded Warehouse Co.,
Greensboro, N. C.; New South Express Lines, Columbia, S. C.; Terminal storage Corp., 817 N. 17th St., Richmond, Va.; Taylor Transfer
Co., 102 Boush St., Norfolk, Va.

SOLVAY SALES CORP., 40 Rector St., New York City. Sou. Branches: 212 S. Tryon St., Charlotte, N. C., H. O. Pierce, Mgr. Sou. Reps.: Earl H. Walker, 1016½ Minerva Ave., Durham, N. C.; H. W. Causey, 215 Middleton Drive, Charlotte, N. C.; M. W. Fletcher, 2978 Hardman Court, Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN BELTING CO., 286-8 Forsyth St., S.W., Atlanta, Ga. Sou. Reps.: A. P. Mauldin, 1876 Graham St., S.W., Atlanta, Ga.; E. G. Merritt, 549 Peachtree Battle Ave., Atlanta, Ga.; J. J. Merritt, 1428 Peachtree St., N.E., Atlanta, Ga.; J. H. Riley, 8018 Monroe St., Columbia, S. C.; S. C. Smith, 2526 Delwood Drive, N.W., Atlanta, Ga.

SOUTHERN LOOM-REED MFG. CO., Inc., Gaffney, S. C.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

SOUTHERN STANDARD MILL SUPPLY CO., 512-514 W. Fourth St., Charlotte, N. C. A. Benson Davis, Mgr.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; L. A. Dillon, Asst. Southeastern Mgr. Sou. Reps.: George A. Dean, H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Greenville, S. C.; H. F. Taylor, Jr., Monroe, N. C.; W. N. Dulaney, 12 Montevallo Lane, Birmingham,, Ala. STANDARD-COOSA-THATCHER CO., Chattanooga, Tenn. Sales and Executive Offices, Lafayette Bldg., Philadelphia, Pa. Sou. Reps.: W. S. Lawson, c/o Standard-Coosa-Thatcher Co., Chattanooga, Tenn.; J. P. Rickman, c/o Standard-Coosa-Thatcher Co., Chattanooga, Tenn.; N. P. Murphy, Guilford Bldg., Greensboro, N. C.

STANLEY WORKS, THE, New Britain, Conn. Sales Reps.: A. Y. Bristoll, 104 Maple Ave., Tel. Narberth 3795, Narberth, Fa.; G. R. Douglas, 707 Columbian Mutual Towers, Tel. 8-7117, Memphis, Tenn.; M. A. Hawkins, 818 General Taylor St., Tel. Upton 6057J, New Orleans, La.; H. C. Jones, c/o The Stanley Sales Co., 651 Humphries St., S.W., Tel. Main 4110, Atlanta, Ga.; W. D. Low, Fox Drive, Chattanooga, Tenn.; G. J. McLernan, 209 Hubbard St., San Antonio, Tex.; C. W. Lynch, 2814 Arcadia St., Charlotte, N. C.

STEELCOTE MFG. CO., St. Louis, Mo. Carolinas and Georgia Distributors: Moreland Chemical Co., Spartanburg, S. C.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., Asst. V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga., H. R. Gaffney, Mgr.; Vernon A. Graff, Asst. Mgr.; Barney R. Cole, Sales and Service. Southern Shuttles, a division of the Steel Heddle Mfg. Co., 621 E. McBee Ave., Box 568, Greenville, S. C., J. J. Kaufmann, Jr., Mgr.; Louis P. Batson, Director of Sales.

STEIN, HALL & CO., Inc., 285 Madison Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C., Ira L., Griffin, Mgr., T. C. Davis: W. N. Kline, 17 Camille Ave., Greenville, S. C.; E. D. Estes, 1257 Durand Dr. N.E., Atlanta, Ga.

STERLING RING TRAVELER CO., 101 Lindsey St., Fall River, Mass. Sou. Rep.: Geo. W. Walker, P. O. Box 1894, Greenville, S. C.; D. J. Quillen, P. O. Box 443, Spartanburg, S. C.

STEWART MACHINE CO., Inc., Ed S. Kempton, Treas., 832 N. Marietta St., Gastonia, N. C.

TERRELL MACHINE CO., Charlotte, N. C. E. A. Terrell, Pres. and Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principal cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; D. L. Keys, S. Brooklyn Sta., Baltimore, Md.; W. H. Boebel, Roanoke, Va.; F. M. Edwards, Goldsboro, N. C.; W. P. Warner and R. L. Scott, Greensboro, N. C.; B. D. Heath and C. W. Meador, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Charleston, S. C.; L. C. Mitchun, Atlanta, Ga.; A. C. Keiser, Jr., Atlanta, Ga.; J. G. Myers, Birmingham, Ala.; P. H. Baker, textile engineer, New York, N. Y.

TEXTILE APRON CO., East Point, Ga.

TEXWOOD MFG. & SALES CO., Greenville, S. C.

U S BOBBIN & SHUTTLE CO., Lawrence, Mass. Sou. Plants, Greenville, S. C.; Johnson City, Tenn. Sou. Reps.; E. Rowell Holt, 208 Johnston Bldg., Charlotte, N. C.; M. Ousley, P. O. Box 816, Greenville, S. C.; D. C. Ragan, High Point, N. C.; A. D. Roper, Johnson City, Tenn.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Reps.; William W. Vaughan and Wm. H. Rose, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.; Torrence L. Maynard, P. O. Box 456, Belmont, N. C.

UNIVERSAL WINDING CO., Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C. Reps.: R. M. Mauldin and Ike E. Wynne; 1008 Norris Bldg., Atlanta, Ga. Rep.: J. W. Stribling.

VALENTINE & CO., J. W., New York City. Sou. Rep.: T. Holt Haywood, 612 S. Main St., Winston-Salem, N. C.

VEEDER-ROOT, Inc., Hartford, Conn. Sou. Office, Room 281 W Washington St., Greenville, S. C., Edwin Howard, Sou. Sales Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Stock Room at 173 W. Franklin Ave., P. O. Box 842, Gastonia, N. C. Also stock room in charge of B. F. Barnes, Jr., Mgr., 1738 Inverness Ave., N.E., Atlanta, Ga.

WAK Industries, Charlotte, N. C.

WALKER MFG. CO., Inc., Philadelphia, Pa. Sou. Rep.: R. T. Osteen, 11 Perry Road, Phone Greenville 1869, Greenville, S. C. Greenville Textile Supply Co., Greenville, S. C.; Odell Mill Supply Co., Greensboro, N. C.; R. D. Hughes Sales Co., 2106 S. Lamar St., Dallas, Tex.; R. B. Dorman, Box 66, Station C, Atlanta, Ga.

WARWICK CHEMICAL CO., W. Warwick, R. I. Sou, Branch Factory at Rock Hill, S. C. Sou, Reps.; M. M. McCann, Box 825, Burlington, N. C.; Henry Papini, 306 Mills Ave., Greenville, S. C.; W. E. H. Searcy, III, Box 128, Griffin, Ga.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Office: Walter F. Daboll, 810 Woodside Bldg., Greenville, S. C.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Bldg., Charlotte, N. C., W. H. Porcher and R. I. Dalton, Mgrs.; 1817 Healey Bldg., Atlanta, Ga. Sou. Reps.; M. P. Thomas, Charlotte Office; I. D. Wingo and M. J. Brantley, Atlanta Office.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass.

WICKWIRE SPENCER STEEL CO., 500 Fifth Ave., New York, N. Y. J. W. Horner, Box 682, Atlanta, Ga., covering Ga., Ala., Tenn. and Miss.; George H. Woolley, Jr., 935 Henley Place, Charlotte, N. C., covering N. C. and S. C.

WINDLE & CO., J. H., 281 S. Main St., Providence, R. I.

WOLF, JACQUES & CO., Passalc, N. J. Sou. Reps.: C. R. Bruning. 302 N. Ridgeway Drive, Greensboro, N. C.; G. W. Searell, Route No. 15, Knoxville, Tenn.

TO FURNISH HIGHEST
QUALITY PRODUCTS COUPLED
WITH UNEXCELLED
SOLVECE



DYESTUFFS

Direct • Sulphur • Acid • Chrome
Alizarine • Acetate • Vats
Naphthol Salts



HEAVY CHEMICALS

Highly Trained Technical Men Always at Your Service

PRODUCTS

Pensols • Fulling & Scouring Compounds • Penetrants • Tar & Paint Removers • Liquid & Powdered Strips • Formetic Acid • Metachrome Mordant • Sulfinide W C (For Sulphur Dyeing) • Softeners • Water Proofing Compounds • Fire Proofing Agent D J • Wooncoline C W • Woonco Size V M S T • Woonco Softener V M

MANUFACTURERS and EXPORTERS

WOONSOCKET
Color and Chemical Company

MAIN OFFICE AND PLANT, WOONSOCKET, R. I.

BRANCHES AND
WAREHOUSES
TORONTO. CANADA
LEAKSYILLE, N. C.

EXPORT OFFICES

SOUTHERN
REPRESENTATIVE
HENRY L. TROTTER. JR.
LEAKSVILLE, M. C.

HYDROLUE D. ... WELL.

- I replace give rine in the fateling of a mountage colons thereby returning disterine for the fateling of a minumition.
- if the printing formation used for computings dolls.

produces not only a sharper work and bring shades, blin due to the labelicating properties smoother running calor. Our laberatory to class have worked out a formula for each used in the camouflage pattern.

HVDROLUX D is common large available in war and a liquid form to the large and a corrosive will remain

WARWICK

CHEMICAL COMPANY

50 First E., New YORK - ROCK HUE